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NETWORKWORLD

The leader in network knowledge ■ www.networkworld.com
March 13, 2006 ■ Volume 23, Number 10

guide
to
NETWORK MANAGEMENT
PAGE 42
The big challenge for network managers in 2006 is meeting user expectations of application performance.
Aurora Health Care's Kim Jahnz

TIM EVANS

AT&T-BellSouth union stokes user concerns

Customer service, fallout for wireless among issues.

BY DENISE PAPPALARDO AND JIM DUFFY

The first reaction by many customers to AT&T's proposed $67 billion buyout of BellSouth last week was this: Is Ma Bell back? But upon reflection they've turned their attention to specific concerns, such as what will become of customer service and the wireless operations and whether the combined carrier's big footprint will benefit them.

The acquisition, if approved by regulators, would create a $120 billion company with about 317,000 employees, the leading share of business voice and data customers, and 71 million residential phone customers in 22 states. The companies have ample resources in common, including shared ownership of wireless kingpin Cingular and the spending of billions of dollars on fiber buildouts designed to deliver voice, data and video to consumers.

Although AT&T will have three of the seven Bells under its belt and surpass Verizon to become the largest U.S. carrier, it still won't be nearly as big as the pre-divesture AT&T, a government-sanctioned monopoly that employed 1 million people.

Still, the new company could be a formidable force for good reasons and bad.

"Anytime there's a consolidation in the telecom industry it's not good for the customers, given we have a small number of large players now," says Dave Dully, CTO at Baptist Health, a Jacksonville, Fla., BellSouth customer.

Others are concerned as well as confused, having barely had time to sort through the AT&T-SBC deal

See Merger, page 14

Bird flu: IT pros planning for worst

**BY DENISE DUBIE
AND TIM GREENE**

If the avian flu hits the United States, the IT department for the Bloomberg School of Public Health at Johns Hopkins University in Baltimore could have a problem.

The department sits across the street from the Johns Hopkins Hospital, where a high number of infected patients could be treated and where a large percentage of the staff travel widely as part of their jobs, increasing the likelihood they could come back infected.

"Our biggest fear is that we won't be able to get back to our data center for an extended amount of time, so we set up systems that would make it accessible remotely," says Ross McKenzie, IS director for the school of public health.

The school has addressed remote control capabilities for PCs and servers by buying 550 GoToMyPC licenses that let network administrators log on via Web-based

See Flu, page 10

Security Insider

Mike Rothman, president of Security Incite, starts his new column this week promising a no-holds-barred treatment of the hot security issues of the day. **Page 22.**

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See Page 11 to Learn More!

WiderNet

Targeting bogus goods

Technology gives merchants a fighting chance.

BY ANN BEDNARZ

RAY VELLA

Sometimes it's easy for Stacy Papachristos to spot a fake, such as a video of a classic WrestleMania match for sale online when World Wrestling Entertainment never released such a product.

The source? Counterfeiters and trademark infringers using the Internet to hawk products. "They'll be selling some of our older footage on DVDs, and it's footage I know we haven't produced on DVD," says Papachristos, who is associate counsel for intellectual property at WWE in Stamford, Conn.

Companies such as Tiffany, Oakley and Montblanc know the

See Counterfeit, page 60

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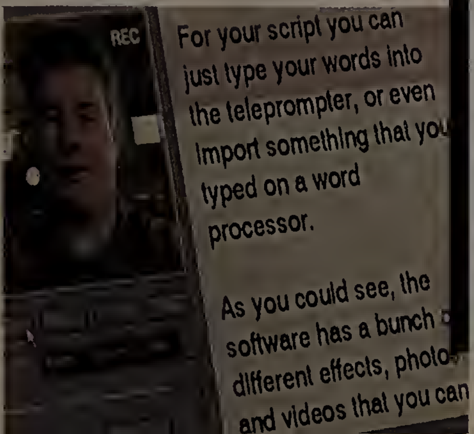
COOL TOOLS

Vlog It software's teleprompter and over-the-shoulder graphics let you create a video broadcast with a professional appearance. Page 36

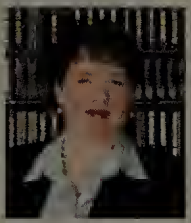


For your script you can just type your words into the teleprompter, or even import something that you typed on a word processor.

As you could see, the software has a bunch different effects, photo and videos that you can

guide to NETWORK MANAGEMENT

It's all about the user experience:



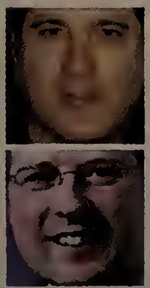
Network managers such as Aurora Health Care's Kim Jahnz are shifting their focus from network availability and performance to meeting user expectations for application performance. Page 42.

The WAN plan: The wide area poses difficult challenges when it comes to delivering optimal application performance. Page 46.

Third-party tools:
Bobby Parrish, senior IT specialist with the city of Jacksonville, N.C., uses third-party tools to troubleshoot voice traffic on his converged municipal network. Page 50.

Go online for links
to all of our coverage of recent network and systems management vendor takeovers. www.nwdocfinder.com/2526.

FACE-OFF



Is anomaly detection the best way to prevent virus and worm attacks? Paul Morville of Arbor Networks says yes. Gil Arbel of CounterStorm says no. Page 38.

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ITVideo: Video blogging made easy
Editor Keith Shaw takes Serious Magic's simple yet powerful Vlog It video blogging tool for a test drive.
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Complete VoiceCon coverage
If you missed the show — or even if you were there — we've put together a page linking you to all the conference news.
DocFinder: 2538

All-Star call for entries
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Online help and advice

Die, file, die!
Help desk guru Ron Nutter tries to help a user who can't seem to get rid of a PC-slowing file, no matter what he does. **DocFinder: 2539**

State of the threats
Columnist James Gaskin discusses spam and other security stuff, and solicits recommendations for the best SMB resellers.
DocFinder: 2540

Getting help deploying VoIP in branch offices
Robin Gareiss of Nemertes Research discusses why you might want to look to vendors for help, rather than carriers. **DocFinder: 2541**

Getting to the root of storage problems
Analyst Mike Karp shows how and why root-cause analysis will let you fix problems faster and get back to other tasks. **DocFinder: 2542**

New: SMB Ask the Experts
Our new SMB Ask the Experts forum lets you get help on your SMB problems — and share tips with other users. **DocFinder: 2543**

Seminars and events

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NEWSbits

Google writes check for Writely

■ Google, which late last year brushed aside rumors it was developing productivity applications, can no longer feign disinterest, because last week it acquired Writely, an online word-processing application. Terms of the deal were not disclosed. Writely is a Web-based, collaborative document editor, but Upstartle, Writely's previous owner, says it is an entry point to a new way of managing documents, projects and Web sites online. Today the software is offered as a free service in the model of software as a service. Upstartle co-founder Sam Schillace told *Network World* in December that the company planned to introduce a premium level of service — presumably for a fee — that would be geared more to corporations and corporate workgroups and include document- and user-specific permissions, password-protected documents and user accounts.

TheGoodTheBadTheUgly

< Let the madness begin! The NCAA has announced that the first three rounds of the men's college basketball tournament will be streamed for free over broadband networks.

Skype warning. Corporations should seriously consider banning Skype because of potential risks, but not before weighing whether the risks are outweighed by the benefits, according to a new study by the Burton Group. "If the reward outweighs the risk, consider Skype as part of your overall communications strategy," says Irwin Lazar, senior analyst for Burton. Downsides of Skype are that it may violate corporate security policies about proprietary, peer-to-peer technologies and may present a backdoor into networks. It also lacks a management platform that allows call records or recording calls.

< Stop the madness! The NCAA has announced that the first three rounds of the men's college basketball tournament will be streamed for free over broadband networks.

RIM upgrades BlackBerry server

■ The latest version of Research In Motion's BlackBerry Enterprise Server, introduced at Cebit last week, supports enterprise instant messaging and the development of applications that mobilize corporate applications, RIM says. Mobile Blackberry users at companies that have upgraded to the BlackBerry Enterprise Server Version 4.1 can IM with users of Microsoft Windows Messenger, Live Communications Server 2005 and IBM Lotus Sametime systems. Another new feature lets administrators wirelessly push data to replacement BlackBerry handsets without the users having to return to base. Previously, users would have downloaded data to a new device via a wired connection to their desktops.

Patch Tuesday looks light

■ In its monthly patch release on Tuesday, Microsoft is expected to issue a critical security bulletin concerning the Office suite and a bulletin on Windows that is rated important, the company said last week. Also tomorrow, Microsoft plans to release an updated version of the Microsoft Windows Malicious Software Removal Tool. The company consolidates updates for its products into one monthly release on the second Tuesday of each month, which has come to be known as Patch Tuesday. In its Thursday advisory, the company didn't discuss what vulnerabilities the next round of security bulletins will address. The security bulletin for Office will involve updates that may require restarting systems. They will be detectable with the Microsoft Baseline Security Analyzer and the Enterprise Scanning Tool. The updates coming with the security bulletin on Windows will not require a restart. They will be detectable with the Microsoft Baseline Security Analyzer.

{quote of the week}

"We borrowed money for the first time the other day . . . about $7 billion. It was a unique experience for us."

Cisco CEO John Chambers, on the company's financing its Scientific Atlanta acquisition.

See the story at www.nwdocfinder.com/2546

IBM pitches Fastball

■ IBM said last week it had developed technology to speed the way large computer networks access and share information. Under a project code-named Fastball, IBM's ASC Purple supercomputer has been able to achieve 102G byte/sec of sustained read-and-write performance to a single file, the equivalent of downloading 25,000 songs in 1 second over the Internet, according to IBM. The company's General Parallel File System software managed the transfer of data among thousands of processors and disk-storage devices. IBM said it enhanced the software in several areas to handle such fast data rates. The world's third most powerful supercomputer, according to the Top500 list, ASC Purple is housed at Lawrence Livermore National Laboratory. The Fastball project's capabilities were demonstrated at that lab. IBM supplied the computer to the U.S. Department of Energy and the lab for use in nuclear weapons research.

Meet the new tech billionaires

■ Technology can still create new fortunes, according to *Forbes* magazine's 2006 annual list of the world's billionaires. The founder of Indian software giant Infosys Technologies and the top executives of Taiwan's High-Tech Computer and Via Technologies entered the list for the first time during the past year, as Microsoft Chairman Bill Gates held on to the top spot and the founders of Google got richer. New entrants to the list included Narayana Murthy, co-founder and chairman of Infosys, who is worth $1.2 billion and is ranked No. 645 out of 793 billionaires. Cher Wang and Wenchi Chen, the husband-and-wife team behind HTC and Via, entered the list at No. 365, with total holdings of $2.1 billion. Another new technology billionaire came in even closer to the front line: Anurag Dikshit, 34, who runs online gambling company PartyGaming from Gibraltar, is ranked No. 207 and is worth $3.3 billion.

Layer 8

"Wireless! I told the designer wireless! Wires are SO last year."

Angela Triola is our caption winner this week. Check in every Monday for a new contest at www.nwdocfinder.com/2545.

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Novell boosts its Linux desktop

BY JENNIFER MEARS

In the next release of its Linux desktop product, Novell plans to include richer graphics, integrated search and support for a broader array of Microsoft file formats, but analysts doubt the updates — though significant — will spark broad adoption of the open source operating system on corporate PCs.

"I don't expect this or any other point distribution release to significantly accelerate desktop Linux adoption," says Gordon Haff, an analyst at Illuminata. "Desktop Linux uptake is controlled far more by broad issues like application availability on Linux rather than micro-features present or absent in a given version of SuSE or Red Hat."

Still, analysts agree that updates to Novell's SuSE Linux Enterprise Desktop, which is scheduled to be released this summer, are important steps in making the open source operating system a viable alternative in corporate environments.

Updates include an integrated desktop search tool called Beagle; support for Visual Basic macros so users can open and save Excel pivot tables and spreadsheets in OpenOffice.org; support for the OpenDocument format; XGL graphics, which Novell recently contributed to the X.org project, to provide a more interactive user interface; and better support for standard network and printing protocols to provide plug-and-play compatibility for external devices and easy connectivity to third-party systems such as Active Directory and Microsoft Exchange.

In addition, the desktop product is integrated with Novell ZENworks Linux Management, providing automated remote management. The cost of the SuSE Linux Enterprise Desktop hasn't been released, but Novell says it will be priced similarly to the current Novell Linux Desktop offering, which costs $50 per client device.

Novell is positioning the product — which the company plans to release around the same time as the next version of the SuSE Linux Enterprise Server 10 operating system — as the first Linux desktop product appropriate for workers who need access to a variety of applications and data types.

Until now, Linux largely has been relegated to niche desktop deployments primarily for transactional workers in retail locations, for example, who use just one or two applications daily.

"We've sold a lot of desktops. But the majority have been for specialized uses, such as cash registers, client/server support devices heavily linked to back-end systems and applications," says Greg Mancusi-Ungaro, director of Linux and open source at Novell, who says the company conducted hundreds of hours of tests with users in developing the product's new features.

"Now, with Microsoft Vista looming and companies having to decide whether they are going to use Vista, they have a choice," he says. "I think the launch of Vista will drive people to look closely at where Linux is."

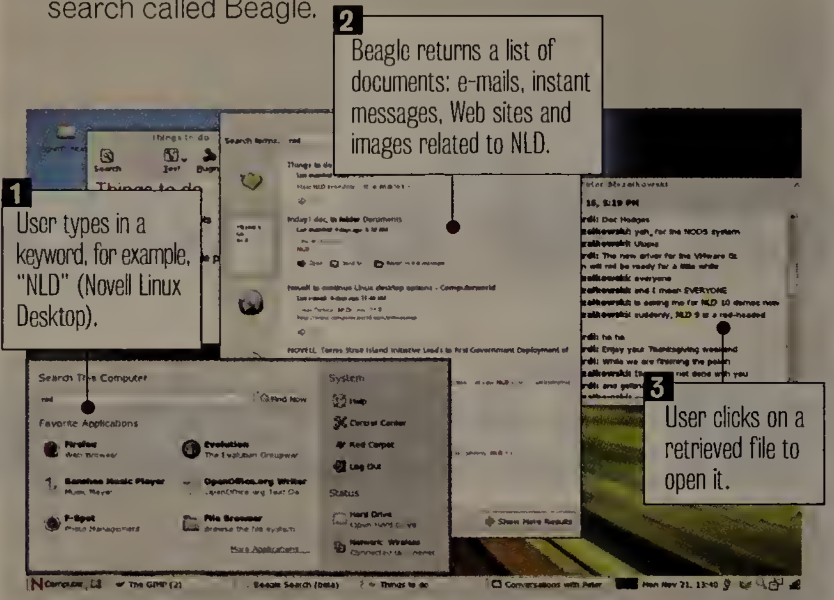
Corporate buyers may take a look, but analysts say Novell and other Linux desktop distributors such as Red Hat have a tough road ahead of them. For one thing, they're competing in a market where Microsoft holds a more than 90% share. The cost and complexity of moving employees off a well-established platform continues to be the biggest hurdle to Linux desktop adoption, says Al Gillen, research director, system software, at IDC.

Those costs include retraining workers and IT staff, and migrating data and applications.

"Each generation of the Linux desktop gets better and better. I would argue that they are at least good enough and maybe more than good enough for corporate users," Gillen says. "It's not just a question of whether it's good enough. It's a question of whether it's cost-effective." ■

Keeping things straight

Novell's new SuSE Linux Enterprise Desktop adds a range of features, including an integrated open source desktop search called Beagle.



1 User types in a keyword, for example, "NLD" (Novell Linux Desktop).

2 Beagle returns a list of documents: e-mails, instant messages, Web sites and images related to NLD.

3 User clicks on a retrieved file to open it.

Onaro upgrades storage change mgmt. capabilities

BY DENI CONNOR

Storage change management vendor Onaro this week is expected to announce several enhancements to its SANscreen Foundation software suite. In addition, the vendor plans to unveil performance and replication management products.

SANscreen Foundation is the basis of Onaro's products. It lets storage administrators visualize, verify and perform root-cause analysis before making changes to the storage-area network (SAN), and audit SAN changes and report and analyze the service delivery to assist in chargeback for the use of storage resources.

SANscreen Performance Insight provides storage administrators a view into SAN performance from an application perspective. It can tie the over- or underutilization of a storage port to an application and can relate changes in performance to specific configuration changes.

Glen Gambal, manager of data center operations for JetBlue in Garden City, N.Y., uses Performance Insight. "It manages the utilization of the SAN to the application, so you can see how things are allocated, how they are utilized in certain areas or how you want to allocate storage to get a more efficient SAN environment," Gambal says. "Before using SANscreen, we were doing it manually. We had a lot of man-hours maintaining the SAN and allocating storage."

SANscreen Replication Assurance verifies from an application level that all the volumes are being replicated as required. Gambal says he hopes to use this product to monitor the replication of data for disaster recovery between his location in Garden City and Salt Lake City.

SANscreen Foundation now also includes trend analysis reporting. With Service Analytics, storage administrators can view time-to-fix service violations, the number of violations, and port and storage capacity. The software now supports EMC Enterprise Control Center and has a more scalable engine that lets it process ten of thousands of bits of information.

Onaro's SANscreen Foundation competes with storage resource management (SRM) offerings from EMC and HP. The company differentiates SANscreen Foundation from these products in that it focuses on how changes to the SAN can affect the network.

SANscreen Foundation starts at $185 per port. Pricing for SANscreen Performance Insight starts at $70 per port. Pricing for SANscreen Replication Assurance starts at $8,000 per array. ■

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Flu

continued from page 1

clients. "Every IT function, except maybe the physical help desk, can be performed remotely at this point," McKenzie says.

Unfortunately, industry experts speculate that, unlike the Bloomberg School, many IS departments are not planning far enough ahead for an outbreak of the avian flu.

Of 167 government workers across eight federal departments, 44% don't know how they should react to a flu emergency, according to a poll by Telework Exchange, an online forum trying to quantify how much teleworking goes on in the federal government.

A survey last month of 300 Minnesota business officials found most thought a flu pandemic would significantly affect their businesses, but only 18% had preparedness plans in place. The poll, sponsored by the University of Minnesota Center for Infectious Disease Research and Policy, found that close to two-thirds of respondents said they were prepared or somewhat prepared to move employees to remote locations or let them work at home, while 29% said they were not prepared.

The H5N1 influenza virus, which originated in Asia, could hit the United States this fall, potentially causing an epidemic, the nation's chief avian flu coordinator warned last week. It can be transmitted from birds to humans via close contact, but not from human to human — yet.

Flu experts say mutations are almost certain to create a strain that supports human-to-human transmission. The resultant pandemic will make between 75 million and 90 million people sick in the United States, with as many as 2 million deaths, according to the U.S. Congressional Budget Office.

Some businesses, such as White Electronic Designs in Phoenix, have the basics of plans in place. "We've given consideration to the avian flu situation as part of our enterprise risk management program," says Jim Kritcher, vice president of corporate IT for the firm.

He says plans call for asking workers returning from areas where flu has struck to work from home for a period to avoid infecting others at corporate sites. And the company would conduct as much work as possible remotely. "We would certainly be susceptible, especially since we have employees traveling to Asia on a regular basis. We do a significant amount of manufacturing in China," he says.

For many companies, VPNs are the mainstay for their disaster plans. "It's the lynchpin of our remote access," says Paul Beaudry, director of technical services for JRI, the largest agribusiness company in Canada, based in Winnipeg, Manitoba.

The company has dual Aventail SSL VPN gateways installed at its headquarters that support 800 employees for accessing e-mail and about 25 work-at-home employees. In the event of flu, that number would rise significantly, and the company would buy more VPN licenses and turn up more applications.

The IT staff of 15 has been trained to increase the number of applications available through the gateway and to increase the resources employees are authorized to reach over the VPN, Beaudry says. So even if some of the IT staff is out of work, someone will be able to set up the VPN for those able to work from home.

Similarly, Kritcher says White Electronic Designs will use its Cisco VPN concentrators to support remote access as well as thin clients to access applications remotely.

The concentrators can scale to handle extra concurrent users, he says, but during an emergency, the number of people trying to connect via the VPN could strain WAN connections and result in slow response time or failure to connect. "So we are testing procedures to reconfigure the WAN links such as wireless IP currently used for failover and redeploy them to support additional VPN traffic," Kritcher says.

In the case of the Johns Hopkins health school, VPNs were too expensive, McKenzie says. "We didn't want something that could be open to everyone when we weren't entirely sure, considering the situation, who or how many would need to use it," he says.

Such planning is essential, according to Gartner, which has published a report titled "Prepare Now for a Coming Avian Influenza Pandemic."

"Enterprises should take the widespread agreement on the strong likelihood of a pandemic . . . as a signal to take immediate action," says Ken McGee, the Gartner analyst who wrote the report. "By mid-2006, [companies should] have in place completed pandemic/IT response plans."

He recommends preparing lists of the most important knowledge workers on staff and figuring out how they can work from home for extended periods. In addition to network access, they'll need the ability to conference with co-workers, customers and business partners, McGee says.

Still, there is only so much IT executives can do, Beaudry notes. "You've got a human fear factor, and you may have people reacting in a way you couldn't predict," he says. "You may have a quarantine situation and business can be impacted — there's no question. But you have to keep the business running."■

Inoculate your business

The threat of an avian flu epidemic preventing large numbers of employees from coming to work means corporate IT departments need to figure out now how they will keep workers connected. Some tips:

- Screen employees who travel to known outbreak areas before they return to the workplace to avoid spreading infection.
- Beef up audio and video conferencing to avoid sending workers to regions where outbreaks have occurred.
- Identify workers who may be added to the remote access rolls in the event of an outbreak and make sure they have the gear and authorization they need to work from home.
- Estimate the increased load on remote access gear and upgrade accordingly.
- Tune help desks so they can deal efficiently with a likely increased workload.
- Stage dry runs of procedures that would kick in when there is an outbreak.

➧ **Read more about pandemic planning with op-ed columnist David Stephenson. Page 41**

Users discuss convergence at VoiceCon

BY PHIL HOCHMUTH

ORLANDO — The challenges of IP telephony — from making the business case for convergence to the down-and-dirty of power supplies in telecom closets — generated plenty of spirited discussion at last week's VoiceCon show.

More than 5,000 IT professionals, consultants and vendor representatives crowded the Gaylord Palms Convention Center to get their hands on the latest IP telephony gear, discuss convergence strategies and debate the direction of key technologies such as Session Initiation Protocol, unified messaging and VoIP services.

"Is there a killer app for IP telephony? I don't think so," said Jamie Libow, telecommunications manager at St. Paul Travelers. "But in buying into IP telephony, you're enabling lots of what I call mini-killers."

St. Paul Travelers uses a mix of Avaya and Cisco IP telephony gear that gives employees who move between offices in Minnesota and Hartford, Conn., more flexibility. For example, they can keep the same phone extension at both locations. Libow can bring up field offices in days instead of weeks by tying small-office gateways into the main PBX over IP. Also, his new disaster recovery scenarios — where all calls are shifted over an IP network from Hartford to a Georgia-based data center — would not have been possible with traditional TDM switching, he said. In a recent move to a new building in Hartford, substantial cost savings were realized by running single Ethernet cables — carrying IP voice and data wires — to hundreds of desktops, instead of two separate cables. All these factors add up, Libow said.

A good convergence strategy involves finding IP voice applications that will save money or increase productivity, and reorganizing an IT staff to handle the changes that convergence brings, said David Stever, manager of communication technology services at PPL Corp., an energy company with a mixed IP and TDM network from Nortel. (His firm won *Network World*'s 2005 Renovator Award for best network upgrade.)

"You won't get the best benefits out of infrastructure convergence if you don't converge" your telecom and datacom departments, Stever said. "You want to make sure that management, all the way up to CIOs and above, really buys into [IP telephony]." IT professionals must show that IP technology by itself cannot be implemented under old telecom and datacom organizational structures. "Link it all together and make it clear that the organization is a critical piece," he said.

While it is important to convince management to reorganize data and voice groups, don't forget to rally the telecom troops as well, says one IT professional.

"You have to get [the telecom staff] excited" about making a

See VoiceCon, page 12

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VoiceCon

continued from page 10

switch to IP telephny says Bruce Mellott, senior communications engineer at Disney Worldwide Services. "You have to let them know that the days of punch-down and running cable and crimping RJ-11 jacks is prety much going away, and that if they want to advance forward ... they have to get excited about learning new things. Those that don't want to learn anything new will have to go by the wayside."

Getting to the point where IP telephony's benefits are realized can be hard, as IT professionals from two large entertainment companies described. Powering IP phones in large deployments is an obstacle for both.

At Viacom/MTV Networks, which is installing thousands of IP phones in its New York offices, "the building's capability to provide us with enough power to support redundancy" is the challenge, said Eileen Wainwright, the company's senior director of telecommunications infrastructure and operations. "We have over 300 users per floor. . . . We're really struggling, especially in Manhattan, getting power up to the 33rd floor or the 55th floor of a building."

Read about a Microsoft's announcement at VoiceCon. Page 19.

Disney Worldwide Services, which manages IT and telecom for the entertainment company, has large-scale IP telephony sites in Japan and on both U.S. coasts. Bruce Mellott, senior communications engineer for the company, also sees power and cooling issues when digital phones are replaced with IP sets — the equivalent of putting another, smaller computer on desktops.

"There are a lot of challenges inside the wiring closets in terms of battery consumption," he said. Providing redundant power to IP phones — which are powered by Power over Ethernet (PoE) LAN switches — requires battery backups in the wiring closets and PoE gear that draws more power and produces more heat than previous switching equipment. Most data closets are designed for 120-watt outlets, Mellot said, but some gear can require more.

"That has been one of our biggest challenges; how to do this with our existing infrastructure," he said. "We spent 20 years really working hard to separate voice and data ... and I said to my boss, we did a good job, because we don't even have a single [conduit] running through the [datacom and telecom] closets."

Besides selling the VoIP business case to management and dealing with the technical details of a VoIP rollout, users at VoiceCon were faced with hundreds of vendors pushing new enterprise VoIP products and services.

VoiceCon
The Challenges & Rewards of IP-Telephony

A VoIP strategies panel at VoiceCon included (from left) Bruce Mellott from Disney Worldwide Services, Eileen Wainwright from Viacom/MTV Networks, Bret Jones from George Washington University, John Haltom from Erlanger Health System and Pete Walsh from the Dallas Cowboys.

"Right when you think you're on the cutting edge, you're not," said Peter Tseronis, director of network services for the U.S. Dept of Education, which ties together eight buildings in Washington with VoIP. "I just put in a requisition for a product that I wanted to buy the other day, and now I have to think about taking that off the table," after seeing some of the wares at VoiceCon. ■

Reporter's Notebook

Seen and overheard bits from the VoiceCon conference in Orlando last week

How 'bout them IP phones?

IP telephony doesn't win football games for the Dallas Cowboys, but having integrated IP applications and voice lets the organization's coaches, staff and employees be more organized and share information quickly, said Pete Walsh, head of technology for the Dallas Cowboys, speaking at the VoiceCon show.

In its third season with a 3Com-based IP telephony network, the team uses a mix of mobile IP devices such as smartphones and PDAs that let staff do more than just talk to each other while out on the road.

"The interesting thing for us is developing the applications to go on those PDAs," Walsh said. One example is an application that lets scouts in the field blend data, voice and images. "Scouts can take a picture of a running back at the [NFL scouting] combine, have all of his data come up right there on the screen, and download it back to an application" at team headquarters, while discussing the prospect over the phone, he said.

The technology is a hit at the highest levels of the organization. "Who would have thought that [head] coach [Bill] Parcells is a closet IT geek?" Walsh asked. "He's got a PDA, a Palm Pilot and computers all over the place."

IP telephony helps Allstate handle good and bad times

Allstate Insurance CIO Catherine Brune, speaking at a session last week, said the insurance company uses IP telephony to extend call center capabilities to employees who may usually work in other roles. The idea is that all employees can help when call centers become overwhelmed or when public switched telephone network service to certain centers is interrupted: both of these situations occurred recently during hurricanes Katrina, Rita and Wilma.

"When I became CIO, [I said] there's something I'm going to fix," in Allstate's call centers, Brune said. "And that was, when disaster strikes, to have all of our employees, no matter where they sit in the company, help us with those calls. . . . This was something that is only possible with IP telephony."

Allstate, an Avaya shop, uses VoIP transport among call centers in the United States and offshore to reroute calls. IP telephony also lets employees at other facilities who have IP phones or softphones on PCS tap into the automatic call distributors in the call centers and handle customers.

AT&T looks to open source telephony

AT&T said it is looking more at open source as an important technology for delivering business VoIP services.

Open source PBXs interest the carrier in particular, Eric Shepcaro, vice president of business strategy and development for AT&T, said in an interview at VoiceCon. Technology such as Digium's Asterisk-based IP PBX could help AT&T by letting the services AT&T delivers interact more tightly with the customer-premises-based call server, he said. Having access to source code could let AT&T deliver applications over its IP network more smoothly, Shepcaro said.

"It's not that it's a challenge to provide services to proprietary" IP PBX systems, such as Avaya's and Cisco's, which AT&T can interface with, he said. "With open source, you can play with that source code and deploy new features more quickly."

Having access to IP PBX source code and fine-tuning a device to the service could also lead to better service-level agreement management and performance among AT&T and customers.

Shepcaro said open source IP telephony is already in AT&T's labs, and industry watchers can expect a partnership soon between AT&T and an open source IP telephony provider he did not name.

A VoIP double-edged sword

One IT professional speaking at the show gave his views on the ups and downs of running a mixed-vendor IP telephony network.

Jamie Libow, telecommunications manager at finance and insurance conglomerate St. Paul Travelers, runs Cisco and Avaya IP PBXs with phones on thousands of desktops in offices in Hartford, Conn., and St. Paul, Minn. He said having both products lets him get his hands on the best technology and push vendors to improve their gear and applications.

"Having this split environment can be a double-edged sword," Libow said. On the one hand, "It's a lot easier to bring products in-house and test them ourselves than to read a white paper on it."

On the other hand, he said, "There are a lot of people [at VoiceCon] from Cisco and Avaya who know me. I happen to have divorced parents. In some ways, I feel like I'm with my parents here [at the show] . . . being pulled in one direction and then the other."

— Phil Hochmuth

Sun pairing tools for physical, logical access

BY JOHN FONTANA

Sun this week plans to add management and other software to its identity platform so that users can converge access to physical and logical resources onto a single smart card.

The company has forged a partnership with ActivIdentity that combines Sun's Java System Identity Management Suite with ActivIdentity's Card Management System (CMS) and SecureLogin Single Sign-On software.

The result is a two-factor authentication system that can be used to provision and de-provision smart cards or other identity tokens that include all the access credentials needed to get physical (building) and logical (network and application) access.

> "Convergence is the most significant thing happening in identity management, and it's totally being overlooked."
>
> *Jonathan Penn, analyst, Forrester Research*

Sun is one of many vendors rushing to create suites of identity technology. Others are CA, HP, IBM, Microsoft, Novell and Oracle.

The agreement with ActivIdentity, in which Sun will resell and support its software, represents Sun's first move into providing infrastructure for two-factor authentication.

A number of companies and government organizations, such as Chevron and the Department of Defense, already have rolled out such systems. The government's Homeland Security Presidential Directive 12, which is a policy for a common federal identification standard, along with regulatory requirements in such fields as financial services and healthcare, are driving interest in two-factor authentication and convergence of access information.

"Convergence is the most significant thing happening in identity management, and it's totally being overlooked," says Jonathan Penn, an analyst with Forrester Research. "Integration and convergence is an upfront cost that pays for itself over time through lower operational costs and better overall security."

The system Sun is putting together with ActivIdentity includes the Sun Java System Identity Manager for provisioning and account synchronization, Java System Access Manager for secure access to Web-based applications, and Java System Directory Server enterprise edition. ActivIdentity's single sign-on technology will be used for access to all applications that are not Web-based.

The CMS merges provisioning, support and administration of authentication devices, digital credentials and their associated user data into a single Web-based management interface.

Sun officials say the system is controlled by Identity Manager to divide network-resource and physical access for users and provision users into the CMS and the single sign-on environment. In turn, the CMS supplies the correct credentials and physical access codes to the smart card and manages its life cycle.

Sun also announced that it is adopting this system internally and plans to roll it out to more than 38,000 employees. The company hopes to have the first phase of the project completed before its fiscal year ends on June 30.

The Sun/ActivIdentity platform is priced per user; 20,000 costs approximately $40 to $75 per user. ■

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Merger

continued from page 1

sealed late last year.

"Heads are spinning trying to figure out what this is going to mean," says Terri Staggs, senior telecom analyst at National Gypsum and president of the Enterprise Networking Technologies Users Association. "I'm located in big BellSouth territory and we have services with them, AT&T, old SBC and Cingular," she says.

"Heads are spinning trying to figure out what this is going to mean."

Terri Staggs, senior telecom analyst at National Gypsum and president of the Enterprise Networking Technologies Users Association

"One of the big things that's confusing or concerns us is wireless," she says. "We were very big with AT&T Wireless before AT&T divested the company. We incurred a huge expense upgrading hardware because the devices had to have SIM cards that were recognized on Cingular's network. The AT&T Wireless and Cingular merger was horrible."

Staggs says poor communication between the wireless service provider and customers left National Gypsum, a wallboard manufacturer in Charlotte, N.C., concerned that its executives were going to lose international wireless service. This less-than-stellar experience has left Staggs asking: "What other unexpected changes are coming with this merger?"

Wireless is only one piece of the merger that has her concerned. Proposed job cuts and customer contract ownership top her list.

"We already lost our project manager at AT&T with the first round of layoffs post [SBC] merger," she says. "Who am I going to lose next?"

More than 20,000 jobs were put on the chopping block when AT&T and SBC joined forces. AT&T says about 10,000 BellSouth jobs will vanish.

Aside from personnel issues, Staggs is worried how her contracts will be handled.

"I have a major contract with BellSouth. How will that tie in with my master contract with AT&T? Will I have to redo my master contract? How will they determine discounts? They're not saying at this point," Staggs says.

It's early for AT&T to explain exactly how BellSouth contracts will apply to AT&T's, but these are issues customers should press the carriers on, according to Phil Redman, a vice president at Gartner.

"Renegotiate contracts for volume discounts based on total spend with all three providers," he says. BellSouth customers should consider a multicarrier strategy for the next couple of years so they have more flexibility, Redman adds.

Some BellSouth customers welcome the change to a larger provider.

"As a BellSouth customer and an international company, one of the challenges has always been that [BellSouth has been] restricted to the nine-state region," says Mick Gunter, IT director at Blue Rhino, a propane tank exchange company in Winston-Salem, N.C.

"It's going to be good for us in being able to support our national footprint better. The telecom industry is in a lot of turmoil and we just hope that we can continue to get good service," Gunter says. "If there was a concern it'd be to make sure that the service stays good. I'm pretty confident in their ability to take care of it."

In addition to working with BellSouth, Blue Rhino uses services from Qwest, SBC, Verizon and AT&T. Gunter says he plans to consolidate all of the company's long-distance traffic onto AT&T's network, but first he'd like to see how things "pan out."

Others are as pragmatic. "It was a necessary [move] in terms of the market," says Bill Moore, telecom manager at the Museum of Modern Art in New York and former president of the now defunct Communications Managers Association. "For a while my phone was ringing constantly with small [competitive local exchange carriers] that couldn't provide everything I needed. "We prefer to deal with a couple of larger companies that can meet a variety of our needs."

"The nature of the telecommunications business is such that you have to have a couple of big national companies to provide services that are required these days," Moore says. "It just goes to show that divestiture probably wasn't as great of a business idea as it was touted to be."

Some users comment that AT&T's acquisition of BellSouth is another step closer to recreating old Ma Bell. But chances are AT&T will never look like it did pre-1984. AT&T had a huge manufacturing arm then called AT&T Networks that spun off in 1995 into what is now known as Lucent Technologies.

Observers don't anticipate regulators will approve a merger between AT&T and Verizon, though speculation was rampant last week that a Qwest-Verizon deal could happen.

"I'm just waiting to see what Verizon will do next," Moore says.

Customers, having lived through the bankruptcies of telecom companies large and small in recent years, say they look forward to a more stable financial environment among telecom companies brought about by consolidation.

"While this will provide some more stability in the future, I don't think it's right around the corner," says Jim Giantomenico, CIO at Finlay Fine Jewelry, a New York retailer with sales counters in 963 department stores nationwide. AT&T and BellSouth will be "one of three major telecom players who will be able to offer both wireless and wireline services for seamless access to business applications," he says.

Giantomenico, like most users, is dealing with his carrier's merger integration issues. "The Sprint-Nextel and Verizon-MCI mergers are showing some challenges in integration, as well as moving forward on offering new services. AT&T and BellSouth's deal also "will take some time to get sorted out," he says.

AT&T says it expects the merger to close in about a year. Industry analysts expect the deal will pass regulatory muster but with some provisions that could include rules regarding 'Net neutrality. ■

Impact of wireless

UBS Warburg estimates that the largest chunk of AT&T's 2007 revenue will stem from its wireless services business, a key reason it is buying BellSouth.

Projected 2007 revenue in millions

	AT&T	%mix	BellSouth	%mix	AT&T/ BellSouth	%mix
Wireless	$22,224	27.1	$15,483	43.5	$38,707	32.2
Consumer	$18,325	21.4	$8,033	22.6	$26,359	21.9
Business	$28,319	33.1	$5,563	15.6	$33,882	28.2
Wholesale	$11,987	14	$4,699	13.2	$15,686	13
Directories	$3,797	4.4	$1,778	5	$5,575	4.6
Total	$85,653		$35,555		$120,208	

SOURCE: UBS WARBURG

nww.com

More on the merger

- Columnists Scott Bradner (page 26) and Johna Till Johnson (page 29) weigh in on the deal.
- We zoom in on the Cingular angle, **(DocFinder: 2548)** and on what Verizon might do **(DocFinder: 2549).**
- Plus we ask ourselves some frequently asked questions. **DocFinder: 2550**

Isilon to debut clustered storage hardware, software

BY DENI CONNOR

Isilon Systems this week is expected to introduce software and two hardware appliances that the company says will increase the capacity and performance of its clustered storage systems.

The company is rolling out the IQ Accelerator, the EX 6000 and a new version of its OneFS distributed file system.

The Isilon IQ storage system consists of appliances that are clustered using Gigabit Ethernet or InfiniBand. They connect to the Gigabit Ethernet network and are managed with the OneFS distributed file system, which converges the file systems of each appliance into one that can scale to more than 250TB of capacity. As nodes are added or removed, OneFS adjusts the size of the cluster and file system.

Customers can use the IQ Accelerator to increase the write and read throughput of their storage clusters without adding capacity. If additional capacity is needed, customers can add Isilon's EX 6000, a 2U (3.5-inch-high) appliance with Serial Advanced Technology Attachment drives for a total capacity of 6TB.

Parag Mallick, director of clinical proteomics at Cedar-Sinai's Louis Warschaw Prostate Cancer Center and Center for Applied Molecular Medicine, in Los Angeles, is a beta user of the IQ Accelerator and is considering adding the EX 6000 capacity-based appliance to his 100TB Isilon system.

"The bandwidth we got with the IQ Accelerator was better than we would have gotten adding another IQ node," says Mallick, whose work in protein research gathers as much as 1TB of data each day.

"We wanted something that was scalable and where we could add capacity quickly," Mallick says.

OneFS has been enhanced to include a technology called TrueScale, which enables linear or independent scaling of performance and capacity. It also adds the capability to support more than 500TB of storage capacity and 7G byte/sec of throughput.

Isilon's clustered storage competes with Exanet. Both make use of capacity or I/O-optimization.

The IQ Accelerator is $14,650; the EX 6000 starts at $4,000 per terabyte or $24,650 for 6TB. ■

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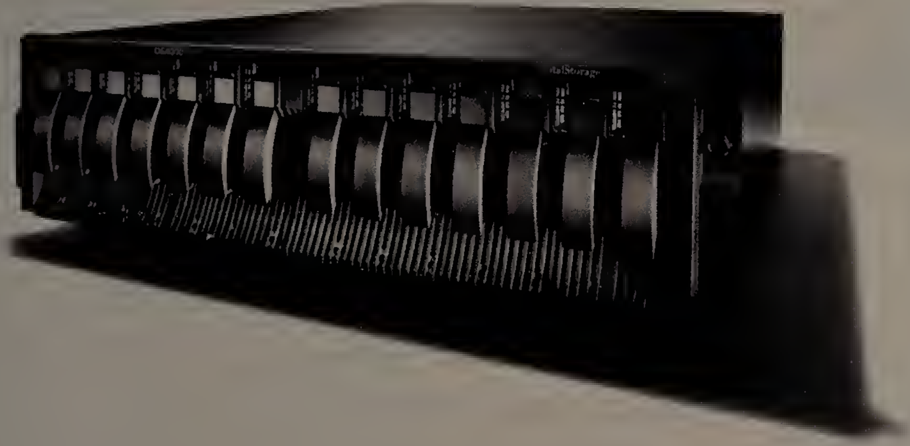

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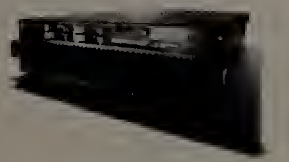

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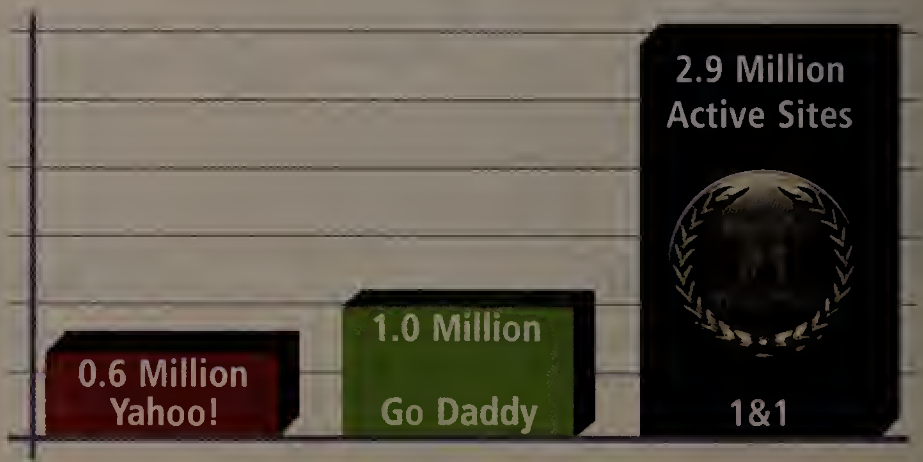

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Cisco reseller tames hotel IP networks

BY JIM DUFFY

BUFFALO, N.Y.— Advancements in IP are not lost on the hospitality industry.

Hotels and resorts offer high-speed Internet access from guestrooms over Ethernet, DSL and Wi-Fi. Increasingly, however, they also are embracing IP telephony, IP TV and other advancements tailored for everyday use.

Add that to industry-specific protocols and mechanisms such as Zigbee for guestroom control functions, and the wiring and cable management task can quickly get out of hand.

That's why a couple of hotels are installing — or thinking of installing — a product from a Cisco reseller designed to consolidate the electronic features of a hotel room into one cable. Lorica Solutions of Amherst, N.Y., has developed the Lorica Room Center, a single circuit board hidden in a hotel room closet that consolidates TV, phone, wired and wireless Internet access, and room control functions onto a single cable, network and manageable device.

"We are equipping hotel rooms with more and more IP devices," says Nick Price, CTO at Mandarin Oriental hotel group and president of the Hotel Technology Next Generation trade association. "It's impractical when you scale up to five, six, or 10 Category 5 [cabling] endpoints to do home runs to a wiring closet on the floor. The last thing you want in a hotel room is a power adapter for someone with a vacuum cleaner to come along and unplug and not put back in."

The Room Center requires only one cable to access and control all critical room systems, eliminating multiple wiring systems for each room function. It's also intended to create demand for more IP services and features in a hotel room for which hoteliers can charge tiered rates depending on the application and required bandwidth.

For example, a guest who uses a Skype IP phone could request an Internet service tier that lets a Skype phone become the guest's room phone. Also, if guests want to download a movie onto their laptop from a site like MovieLink, a hotelier can offer an Internet service tier that supports bandwidth-hungry applications.

"The vast majority [of hoteliers] think, 'I just have to have high-speed Internet,'" says Clark Crook, president of Lorica Solutions. "That's where the missionary work comes in. If we're capable of defining ROI, we have some compelling stories to tell."

Some of those returns come from eliminating separate coaxial cabling in hotel rooms to support cable TV. Other savings would come from the reduction in the number of Cisco Power over Ethernet (PoE) switches required to drive all the IP devices in a room. Each Room Center board comes with a 16-port Cisco 100Mbps Ethernet switch, eight ports of which support IEEE 802.3af-compliant or Cisco proprietary PoE.

Room Center cuts the pricing of a managed PoE switch port with redundancy and uninterruptible power from more than $200 to less than $75 per port, Lorica says. This is achieved through centralized power for the board and all room devices instead of an uninterruptible power supply for each PoE switch.

"It's a cable plant simplification device," Mandarin Oriental's Price says. "Even though we're getting more and more [IP], it doesn't mean the hotels are necessarily inclined to want to spend a lot of money on cable plants. They are very cost-constrained environments."

Price says Room Center, which he is evaluating for a Mandarin Oriental resort that will open later this year in Riviera Maya, Mexico, could shave 40% to 50% off the hotel chain's room network costs, much of which is in running separate Cat 5 or coaxial cables into a single room for each device.

"Hotels, unlike offices, don't close at night or weekends," Price says. "So you can't easily cable a hotel. If you're a hotel today that has one 'Cat-whatever' [cable] on a horizontal run to a guestroom, this is the way that you can suddenly break out and add a whole load more IP functionality in a room without taking carpet or floors up, or ceilings down. It's a very appropriate product for a Marriott or a Hyatt or somebody like that with hundreds of hotels, because they're all having to put more and more IP in a room. The typical DSL-off-of-a-phone-line doesn't cut it anymore."

A single Room Center board supports one to four rooms depending on the number of required ports per room, Lorica says, but typically it is configured to support two rooms with back-to-back closets.

Mandarin Oriental is evaluating six for the Mexican resort, and considering trials for the product at four or five other Mandarin Oriental locations, Price says.

The Hilton Garden Inn at the Buffalo Airport has 42 Room Center boards installed. Each board powers the IP phones and data network devices for four rooms, Lorica says. Calls to Hilton Garden's general manager were not returned.

Price says the unit could be a big boon to resorts with villas, cottages or clusters of buildings located far from the main resort office and its technology support systems.

"One of the things we've asked Lorica to do is put a fiber interface on the downstream side so that we can go long distances," Price says. "That's a very, very cost-effective way of taking a bunch of services over a kilometer and feeding two or three or four cottages. Before, it was really almost mission-impossible to do that. It was so damn expensive."

Another benefit is the system's ability to be remotely managed. Once a guest checks in, the Room Center system can "fire up" all the IP and Zigbee devices in that room, so things such as the TV, phone, Wi-Fi access and room controls are set while the guest is making his way to the room.

"It very much acts as a localized interrogation point for the status of other systems in the room . . . which is the critical thing. So that if a guest's phone isn't working you don't have to run up to a room and figure out why," Price says.

Support for analog phones will come later this year when Lorica unveils the second generation of Room Center. That board will include a two- or four-port analog terminal adaptor for multiphone rooms, where an IP phone sits on the desk and analog phones sit on a nightstand and in the bathroom.

This will eliminate the need for hotels such as Mandarin Oriental to break out separate Cat 5 cable to support those analog phones, Price says.

Even though Room Center might reduce the number of Cisco PoE switches a hotel needs, there is a trade-off for Cisco: it creates demand for Cisco's CallManager IP Telephony platform in the hospitality arena, a market it was not really designed for, Crook says.

In addition to consolidating networks with the Room Center, Lorica also writes software extensions for CallManager to customize the platform for the hospitality industry, such as property management system integration, wake-up calls, do not disturb and other guest service features.

"Cisco is our biggest fan," Crook says. "Cisco has not been competitive in hospitality with IP telephony. [Room Center] allows the Cisco product line to be much more competitive. We're creating opportunities they never would have got." ■

Room service

Features of the Lorica Room Center unit, 42 of which are in use at one Hilton Garden Inn:

- 100/1000Mbps Ethernet uplink port.
- 16-port 100Mbps Ethernet switch with QoS, virtual LAN and protected port modes.
- Eight ports of 802.3af and Cisco phone Power over Ethernet (PoE) with autodetection.
- 802.11b/g Wi-Fi wireless access point.
- Zigbee radio with a bridge to Ethernet for in-room devices and building controls.
- Centralized 48-volt architecture to supply power from the distribution closet to all Room Center boards and PoE devices.
- Device management and monitoring through SNMP.

BMC targets SMBs with systems mgmt.

BY CHINA MARTENS, IDG NEWS SERVICE

Management software vendor BMC Software last week released a suite of products aimed at small and midsize businesses. The move follows a recent similar announcement by rival IBM.

Known as IT Systems Management Express, BMC's suite brings together systems management, service management and identity management through the integration of the company's BMC Performance Manager Express, BMC Identity Management for .Net and BMC Service Desk Express.

IBM announced its SMB management software suite — Tivoli Express — last month. The IBM and BMC suites differ in that BMC's software includes a service desk, says Stephen Elliot, research manager, enterprise systems management software with IDC.

BMC acquired the service desk software when it purchased the assets of Magic Solutions from Network Associates in February 2004. The deal netted BMC 4,000 SMB customers and brand recognition with the Magic product brand.

BMC's IT Systems Management Express bundles are priced between $50,000 and $95,000. ■

Microsoft builds partnerships for run at VoIP

BY JOHN FONTANA

Microsoft last week lined up additional back-end partners it will need to support its real-time collaboration platform and VoIP client. The company plans to give corporate users a full range of voice communication features through software that supports integration between any PC-based device or service and traditional cell or wireline phones.

The partnerships, including those with Cisco and a number of telco partners, focus on support for Session Initiation Protocol (SIP) and SIP for Instant Messaging and Presence Leveraging Extensions (SIMPLE), and the integration of traditional phone systems and the PC.

At the annual VoiceCon show Microsoft said Alcatel, Avaya, Cisco, Mitel, NEC, Nortel and Siemens will integrate call-control capabilities with Microsoft's Live Communications Server (LCS), Office Communicator 2005 desktop client and Office Communicator Mobile.

"LCS and Communicator are not worth a whole lot without the back end," says Rob Enderle, president of the Enderle Group. "They have to have the back end in place or the other parts don't move."

SIP is lauded for its openness and flexibility, but many vendors, such as Avaya, Cisco and Nortel, balked at building pure-SIP versions of their telco gear, citing feature limitations.

Those limitations are eroding, making it easier for vendors to build integrated products.

"This allows enterprises to begin to unify LCS with other projects such as rolling out Cisco CallManager," says Irwin Lazar, an analyst with the Burton Group. "When those users discovered that CallManager did not work with LCS they were the people going to Cisco and Microsoft saying you need to figure this out quickly."

The integration of Microsoft's products with those from Alcatel, Avaya, Cisco, Mitel and NEC will let users launch and answer PBX-based and IP-PBX phone calls and view phone presence information from the Office Communicator client. The same client will let users switch between instant messaging and voice sessions. Microsoft also reiterated similar integration projects that are now available from Nortel and Siemens.

Microsoft plans to release the next version of its Office Communicator client later this year with Office 2007. The client features include enhanced voice and video, but also focus on telephony integration.

Microsoft plans to extend voice features to Office Groove, its peer-to-peer network client, which will be integrated with Communicator.

Analysts says Microsoft's goal is to own the real-time communication client interface on the desktop, mobile client and softphone regardless of how calls are routed or completed on the back end.

"Our Unified Communications Group is focused on building a software platform and services that deliver a unified communications experience … across all modes of communication, including e-mail, instant messaging, VoIP and audio/video/Web conferencing," a Microsoft spokesman says.

The integration of Microsoft and Cisco products is centered on the newly renamed Unified CallManager, formerly called CallManager 5.0, which will be integrated with LCS and Communicator.

Cisco also plans to integrate the two Microsoft products with its Unified Presence Server and Unified Personal Communicator, which lets users see the availability status of colleagues. It supports combining voice, video, chat, e-mail and messaging into a single interface.

Also last week, IBM said its Global Services Division has developed a customized plug-in for Sametime 7.5 that will integrate the platform with Unified CallManager and Unified Presence Server. The integration also is based on SIP and SIMPLE.■

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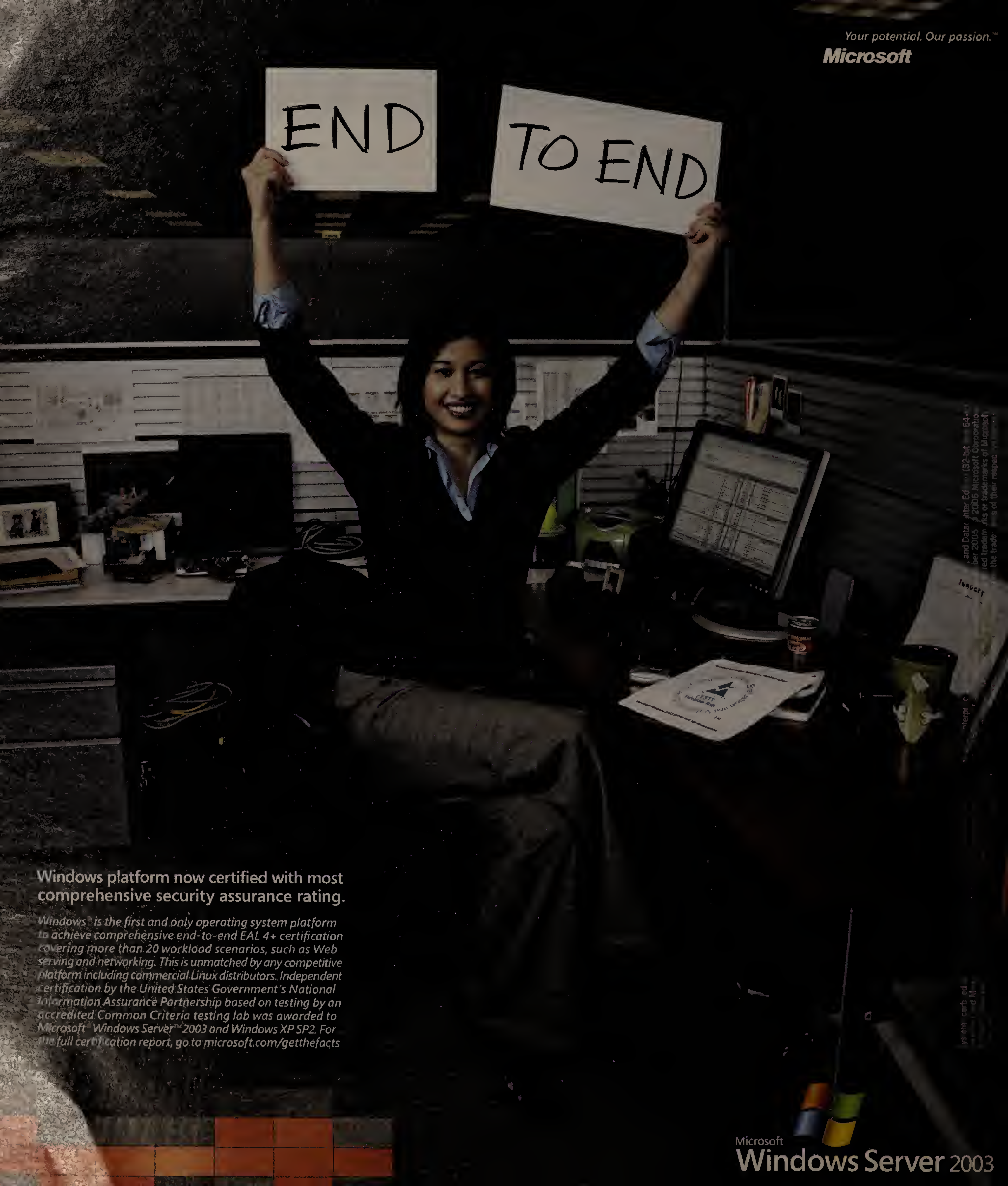

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Short Takes

■ **Netgear** will introduce wireless LAN products by June that are based on the existing IEEE 802.11n draft specification. According to the draft, which isn't expected to be finally ratified before early 2007, 802.11n access points and adapters will deliver throughput of as much as 600Mbps using spatial multiplexing, multiple-input multiple-output technology. The hardware vendor unveiled the new design and form factor last week at the annual Cebit show. Pricing has not been set.

■ **Cisco** last week said it intends to acquire privately held **SyPixx Networks** for about $51 million as a steppingstone to expand products and services into video-based surveillance monitoring over IP networks. SyPixx makes an array of H.264-standard video camera encoders and decoders, transmission equipment, storage, management software, recording equipment and fiber-optic equipment for IP-based video monitoring, and offers a way to integrate legacy analog video monitoring systems. The SyPixx products include software that can encode an analog video stream and put it onto an IP network. Easier management is the reason that businesses might want to migrate from analog video monitoring to a digital system for physical security. The SyPixx equipment is expected to be rebranded under the Cisco label.

■ **Intel** last week demonstrated the technology on which mobile WiMAX will be based and said it will deliver a PC Card using the system in the second half of this year. Mobile WiMAX is a WAN technology intended to deliver 1Mbps or more to devices in motion. It will be based on the IEEE 802.16e specification approved late last year, and products will be certified by the WiMAX Forum industry group. Intel has forecast that WiMAX will spread like Wi-Fi wireless LANs, because of standardized high-volume manufacturing. WiMAX can be used in a broad range of frequency bands. Different bands are expected to be used in different regions, in most cases by carriers that have licensed the spectrum. The PC Card coming this year will use the 2.3GHz to 2.5GHz band.

Q&A

RSA CEO talks authentication

RSA Security late last year acquired privately held Cyota, which offers online security and anti-fraud services to help financial institutions protect consumer accounts. CEO ***Art Coviello*** *recently sat down with* Network World's *Senior Editor Ellen Messmer to discuss the Cyota acquisition and RSA's views on the future of authentication.*

With its anti-fraud services for banks, Cyota is a very different type of business than RSA Security traditionally has been in with its SecurID products for two-factor authentication and the BSAFE encryption toolkits. What made you think of acquiring Cyota?

We started 2005 flattish, and I was more than a little unhappy. I said to employees, if there's such a great market for authentication, we have to create it. We spent April to July figuring out strategy options that would call us to drive the market. We asked, 'What are the choices we need to give people?' A different approach we noticed is risk-based analytics, especially on the consumer side. That was Cyota.

How do the Cyota analytics work?

At Cyota, they'll monitor consumer transactions based on several things: computer profile, browser and transaction behavior, to have servers in the bank looking at fraud monitoring. We're gathering data about legitimate users so when they come again, we'll know them.

So suppose the Cyota bank service spots what the risk-based analytics determine is a criminal trying to imitate a legitimate customer?

We work with the ISPs and shut them down. We do forensics and provide that to law enforcement. The fraudster gets pushed away and shut down. About 10 large banks, and now eTrade Financial, use Cyota to share information about fraud collaboratively as part of Cyota's eFraudnetwork.

Isn't this a lot different business than what RSA Security has been involved in up to now?

I don't think we're getting away from our roots. We're just getting more pragmatic.

See RSA Security, page 22

Mitel upgrades call center software

New business edition has scaled-down features for smaller operations.

BY TIM GREENE

Mitel is upgrading its call center software to make management of dispersed agents simpler.

The Customer Interaction Solution is a combination of software and a Mitel IP PBX, the 3300 IP Communications Platform.

The upgrades, which were announced at last week's VoiceCon show, parallel features being added to equipment from competitors Alcatal, Avaya, Cisco, Inter-Tel and Spanlink.

The software includes Mitel Visual Architect, management software that gives supervisors a map of an automated call distribution configuration and the ability to modify the configuration.

It can shift calls from a swamped part of a call center to a part where there is less traffic, says Dougal McLean, CIO of PC help desk firm YourTech Online in Kelowna, British Columbia.

"You don't have to call a call technician to do that. It's all there on the screen," says McLean, whose company has been using Mitel gear for four years to support its agents, all of whom work from home.

The software also features Mitel Visual Queue, which can flag premier customers waiting for an agent to pick up, and lets a supervisor give them priority by moving them forward in the queue or sending the call to an alternate answering point. If a customer or group of customers are stuck in a queue, they can be dragged and dropped into a different queue where the wait will be shorter, McLean says.

Visual Queue can flag calls that go on longer than average so supervisors can find troublespots more readily where intervention might help. The software upgrade supports virtual call centers consisting of agents who may be working from dispersed locations and who connect to the call center via IP phones or Mitel's new automatic call distribution softphone.

The software gives supervisors a tool to designate which remote workers will be associated with specific agent groups, such as agents in a bank call center who have expertise in mortgages. They will be assigned to the same hunt groups and have calls distributed to them as if they were all located in the same physical call center.

The software also supports a feature called hot desking, in which agents can log on to the call center from a Mitel IP phone or Mitel softphone and have the PBX download their personal settings, such as programmable keys and speed dials.

Mitel also is introducing a call center software package for small businesses called Contact Center Business Edition. The package, which is aimed at customers with as many as 25 agents, contains fewer advanced features than Mitel's full-blown Contact Center Enterprise Edition. For example, the business version has scaled-down reporting and real-time monitoring.

The new software and business bundles are available next month at about $600 per seat. ■

SECURITY INSIDER

Mike Rothman

Maturity . . . it happens

Unprecedented highs gave way to terrifying lows. And that was just my stock portfolio.

It's been 10 years and one month since my last *Network World* column ran and it has been an interesting decade, to say the least. Unprecedented highs gave way to terrifying lows. And that was just my stock portfolio.

Ten years ago my priorities consisted mostly of finding out who was having a keg party that night. Today, as a husband and father, I'm still on the lookout for a good party, but it usually involves following my kids though some inflated jumping contraption that looks like Mr. Incredible. I guess they call that maturity.

How many of you remember what an uphill battle it was to convince your organization to deploy anti-virus software on every device? Remember the old question: "Do we really need that firewall?" Now it's not if you need security, it's how much and where. Yep, that's a form of maturity.

The sheer number of threats has mushroomed as well. Ten years ago, attacks were infrequent enough that you could set a couple of router and firewall rules to stay ahead of the bad guys. Now, with about 4,000 vulnerabilities annually, the reality is you aren't going to get everything fixed, so you need to choose carefully. Another sign of maturity.

The folks trying to break into your network have changed as well. At first hacking was a novelty (anyone remember the movie "War Games"?), undertaken by socially inept high school students looking to impress their friends. Today, hacking is a business run by global organized crime cartels. These folks don't mess around. The objective is not to deface a Web site, but to monetize stolen private information and to turn unprotected devices into zombies. You guessed it — that's maturity.

Now companies are facing the oversight of various regulators to make sure private information is protected and adequate financial controls are in place. You think Congress spends time figuring out how to regulate emerging markets and businesses? Score one more for maturity.

Finally, let's look at growth and the types of vendors providing these security solutions. Sure, there are still a ton of start-ups (actually way too many), but the ones driving the agenda are not pure plays anymore. Cisco and Microsoft are the titans of the arena. The biggest pure play, Symantec, acquired Veritas last year because providing security alone is no longer enough. That is maturity with a capital M.

Mature problems require mature solutions coming from mature vendors. The objective is to build a security architecture that doesn't need a new widget for every new threat. Network professionals need to act maturely in thinking strategically, not tactically.

In this column, I'll be focusing on strategies and the associated tactics required not only to survive the onslaught of attacks, but also to turn technology safely into the asset it needs to be — while keeping the auditors and regulators happy.

Ten years have passed, but my philosophical bent has not changed. It's not about me or the vendors — it's about you, the enterprise network professional. You can count on me not to shy away from taking the hard position and calling out stupidity for what it is. You deserve no less.

Rothman is president and principal analyst of Security Incite, an analyst firm focusing on information security. Read his blog at http://feeds.feedburner.com/securityinciterants or send e-mail to mike.rothman@securityincite.com.

Government CIO survey: IT security is top concern

BY GRANT GROSS, IDG NEWS SERVICE

CIOs at U.S. government agencies say they've made progress on several key issues, including IT security and modernizing their IT infrastructure, but still face major challenges in security and other areas, according to a survey released last week.

Government CIOs told interviewers from the Information Technology Association of America (ITAA) that they've made progress in establishing IT security as a priority, expanding security awareness among staff and, in several cases, appointing a chief security officer. But IT security and privacy remain federal CIOs' top concerns, says Paul Wohlleben, a partner at Grant Thornton, which compiled the 16th annual ITAA survey of U.S. government CIOs.

"They want to move to a state where they're taking a view of their risk . . . on an ongoing basis, supported by technology," Wohlleben says. "Today, you hear them talking about too much manual intervention. They want to see more tools emerge that they can hook onto their networks, onto their applications, that will perform the monitoring for them."

Federal CIOs want more mature IT security tools, he adds.

"We're talking about a vast space they have to protect, and some very sophisticated perpetrators," he says. "Some of the [security] technology is just now evolving."

Many CIOs reported making progress with IT security, but fewer said they were moving forward with privacy initiatives. Although some high-profile agencies have addressed privacy issues, "privacy is a much less mature concern in government" than security, Wohlleben says.

The survey includes interviews that were conducted between August and December 2005 with 36 CIOs or assistant CIOs and three government oversight officials. As in the past, this year's survey focuses on general trends rather than hard data points.

In addition to security concerns, federal CIOs also identified as key priorities standardizing and consolidating their IT infrastructure, improving project management and examining ways to use managed services from outside vendors, according to the survey.

One general theme in the interviews was concern about executing long-term plans, Wohlleben says. Even though federal CIOs see themselves as agents of change in coming years, shifting priorities within government can make it difficult to carry through long-term IT plans, he adds.

Several government IT projects, including an FBI case-management project, have not met their deadlines in recent years. The 4-year-old FBI Virtual Case File project was scrapped last March, but the FBI announced in June it had rolled pieces of that project into a new case-management plan.

Many CIOs see execution as a concern, especially when they're trying to carry out IT modernization plans, Wohlleben says.

"The real issue is executing those plans over a dynamic period of time," he says. "Most of these systems, you don't implement in a week, you don't implement in a year. They're multiyear implementations in a political environment where laws are being changed, in a budgetary environment where budgets are being changed." ■

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RSA Security

continued from page 21

Cyota is a start-up. Is it profitable yet? What does it cost to a financial enterprise to use Cyota?

Cyota is about to make money. As far as the fraud-based services, Cyota costs about $1 to $2 per user, per year.

The Cyota service is typically used to guard against fraud based on reusable passwords. But RSA has long held that strong two-factor or encryption-based authentication provides better security than reusable passwords. How do you reconcile this somewhat contradictory viewpoint after advocating for so many years that people get away from reusable passwords?

We have a passion for authentication. When it's something in between, Cyota will ask you for more information, such as identifying an image you picked out earlier.

On the topic of strong authentication and the RSA SecurID token for generating a one-time password, what's the status there?

The second major decision we made in addition to buying Cyota was to launch what we call 'credentials everywhere.' That means embedding the SecurID token in cell phones, memory sticks, SanDisk flash memory, [Research in Motion] devices, the Motorola Q smart-phone. We're developing sales and distribution relationships based on embedding the SecurID in these types of devices. Today, SecurID is available for the Palm and BlackBerry. ■

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HP, Intel seek to revive Itanium

BY JENNIFER MEARS

HP and Intel hope the upcoming release of a dual-core version of Itanium, combined with growing software support and a stepped-up marketing campaign, will give the chip the spark it needs to overcome sluggish sales. Even current users of the platform note that major challenges remain, however.

Scott Womer, manager of systems engineering at Atmos Energy in Dallas, is an Itanium backer. The natural gas utility brought in Itanium systems about three years ago after testing determined that its Hyperion business performance-management application ran best on Itanium servers running HP-UX.

As Atmos looks to make a transition from its legacy PA-RISC systems and as HP phases out its Unix boxes in favor of an Itanium-based Integrity line of servers, Womer faces roadblocks. The biggest issue is a lack of application support, he says.

Itanium on the rise

IDC says that customer spending on Itanium-based systems grew from $1.4 billion in 2004 to about

$2.5 billion

last year.

For example, only about half of Atmos' Oracle financials stack is supported on Itanium.

Oracle plans to expand support, but that probably won't come until year-end.

"The support isn't there, and it's burning us," Womer says. "We can't wait."

Instead of running its Oracle applications on Itanium, as Womer would have liked, Atmos is phasing the package out of PA-RISC servers and onto a cluster of Xeon-based systems running Linux.

That kind of gap in independent software-vendor support has not gone unnoticed by HP and Intel, which in recent months, have sought to draw greater attention to the Itanium platform. In January, the two led a group of industry vendors who pledged $10 billion over the next 10 years to develop and market products based on the processor.

Earlier this month, HP CEO Mark Hurd and Intel CEO Paul Otellini underscored their commitment to Itanium in a Webcast. Oracle CEO Larry Ellison made a taped appearance in which he also expressed support for the 64-bit processor, saying that Oracle's entire suite of enterprise applications would work on HP's Integrity servers running HP-UX 11i.

In all, about 7,100 applications are supported on Itanium today; a little more than 100 were supported in 2003. Hurd and Otellini say a broader software portfolio is coming.

Prepping for dual-core version

A dual-core Itanium processor, code-named Montecito, also is set to begin shipping in the middle of the year, Otellini says. Intel originally had said that the dual-core chip would be widely available at the beginning of the year.

Industry observers say the release should help spur interest in Itanium, which has failed to attract the broad adoption Intel and HP originally hoped for when they began work on the processor more than a decade ago. HP has offered Itanium-based servers since 2001.

"If you look at Itanium, all you see is slip and slide," says Joe Clabby, president of Clabby Analytics. "We're going to slide the schedule, and we're going to slip or kill this functionality.... Intel needs to start delivering on its Itanium road map."

Clabby suggests that until Intel proves that it is on course with Itanium, customers should seek alternatives.

Although migrating custom applications from HP-UX could be difficult, most packaged applications should provide an easier switch, he says.

"For custom applications, you're kind of stuck unless you can recompile and run them easily on another platform," Clabby says. "For packaged applications, this is an opportunity to reevaluate whether you need to host them on the more expensive [Itanium] environment, or if it makes sense to run them on x86-based servers, whether AMD or Intel. It's an opportunity to review." ■

Short Takes

■ Security management vendor **NetIQ** last week unveiled Change Administrator, which provides change control for network servers. The software lets users delegate permissions for individual administrators based on the tasks they need to perform instead of granting them full access to a server. The software can report on who is accessing specific servers and at what time, information that can be key for compliance auditing. Pricing starts at $2,000 per server.

■ Researchers at the **Massachusetts Institute of Technology** have found a way to extend the power life of mobile computers. Instead of from batteries, they draw power from an electronic device called an ultracapacitor, which works through nanotechnology. Ultracapacitors are still several years away from being used as the main electricity source for commercial laptops and handhelds, but are already used for back-up power in many small consumer products.

EMC fleshes out NAS line for small, midsize firms

BY DENI CONNOR

EMC last week bolstered its lineup of network-attached storage systems for small and midsize companies, and added software designed to help customers perform root-cause analysis of problems.

The new Celerra NS350 and NS704 NAS appliances are the lowest- and highest-end models in the NS series, respectively, with the 350 scaling up to 10TB of capacity and the 704 maxing out at 48TB. Both support iSCSI connectivity, which is key for supporting environments running such applications as Microsoft Exchange and SQL Server. The boxes, which feature snapshot capabilities, use Fibre Channel and less-expensive, slower Serial ATA drives. The NS350 starts at $47,000, and the NS704 starts at $260,000.

The company also announced its Smarts IP Availability Manager extension for NAS, software that auto-discovers the components on the IP network using SNMP, automates the root-cause analysis of connectivity problems and estimates their impact on the network.

The software marks the first integration of EMC gear with the Smarts technology EMC acquired in December 2004. It works with all EMC Celerra NAS systems and Network Appliance file servers.

"The Smarts predictive-analysis software is the sort of thing that has been common in enterprise data centers that really depend on their infrastructure running 24/7," says Charles King, senior analyst for Pund-IT Research.

The management software is priced on a device basis, starting at $50,000.

EMC last week also said it is offering in conjunction with partner MTI a file-management and archiving package consisting of the EMC Celerra NS, EMC Celerra File Mover software, a four-node Centera content-addressable storage array and the Centera File Archiver software. With this package, files are stored on the NAS appliances, and the storage administrator uses File Mover and File Archiver to migrate and archive them on the EMC Centera. ■

nww.com

Storage blog

CONNOR

Read Deni Connor's regular updates on the industry in Storage Notes, including recent acquisitions by

Brocade: **DocFinder: 2531**

Atempo: **DocFinder: 2532**

Find out about "information stewardship": **DocFinder: 2533**

APPLICATION SERVICES

■ CRM ■ MESSAGING/COLLABORATION ■ WEB SERVICES ■ ERP ■ E-COM ■ NETWORK AND SYSTEMS MANAGEMENT

Short Takes

■ **Salesforce.com** last week released a high-end edition of its **on-demand CRM software.** The company now offers four editions of the software — Enterprise, Professional, Team and Unlimited. Unlimited Edition is a step up from Enterprise Edition, according to the company. Enterprise Edition gives a maximum storage capability of 20MB per user, but Unlimited Edition provides 120MB of storage per user. Enterprise Edition can support 10 custom applications within AppExchange, but Salesforce.com says Unlimited Edition can support as many applications as customers need. Unlimited Edition costs $195 per user, per month. It includes all the features of Enterprise Edition plus Salesforce Sandbox, a secure application environment where customers can create working replicas for testing applications they intend to deploy.

■ **NetCustomer** last week announced customized support services for users of Oracle's **PeopleSoft and J.D. Edwards applications.** It also plans to offer support services to users of applications from SAP. NetCustomer intends to cash in on the expertise it has built up during four years as an offshore support-services contractor for PeopleSoft, the company said. Although vendors have typically delivered services at customers' sites, netCustomer plans to do so remotely from India, where staff costs are lower, the company said. The company is promising savings of 50% over the annual maintenance and support contracts offered by Oracle.

■ **Cassatt** is extending its server virtualization software to **Java 2 Platform Enterprise Edition** applications. Instead of dedicating applications to a particular machine or cluster, Cassatt's Collage software creates a virtual pool of application resources and matches up applications to resources as needed. The company's new Collage Web Automation Module (WAM), which runs on the Collage platform, provides management and control capabilities specifically for applications built using BEA WebLogic Server 8.1. Pricing for Collage starts at $100,000 for a 40-node environment; the WAM module costs an extra $5,000 per node. WAM is available for the Linux and Solaris operating systems.

InSite: Lessons from Leading Users

Salon trims costs with hosted apps

BY ANN BEDNARZ

Salon chain Ulta has given its customer-service operations a makeover and managed to slash support costs by one-third in the process. Key to its new operations are hosted call routing and CRM technologies.

Gone are the days of having a company operator perform switchboard operations and track help desk requests with a spreadsheet, says Ron Brown, director of service and communications at Ulta, which has 160 stores in 21 states. In the past, "phone routing was literally managed by a receptionist at our corporate office. Every guest call that came in went through her," Brown says. Meanwhile, a third-party provider handled customer queries that came in via the Web site, and Ulta had little to do with those contacts. "We really weren't able to manage those contacts with the intimacy that we would have liked," Brown says.

He set out to unify Ulta's CRM efforts and find a way to handle the Romeoville, Ill., company's phone inquiries more efficiently. Brown settled on hosted call-routing technology from Echopass and a hosted CRM application from RightNow Technologies, both of which Ulta implemented last spring.

Brown considered deploying call-routing and customer self-service technologies in-house, but quickly ruled out that option because of its expense. "It was quite prohibitive," he says.

The Echopass platform handles computer telephony and automatic call distribution for traditional landline and VoIP calls. Echopass embeds Genesys Telecommunications' routing technologies into its platform, which it operates from a Salt Lake City data center.

RightNow's software provides the interface for Ulta's help desk agents, who field calls routed by the Echopass platform and Web-based inquiries. The RightNow software also serves as a repository for customer-service resources, which Web site visitors can access on their own. For example, online FAQs address common customer inquiries, such as the store's return policies. A portion of the FAQs, available only to Ulta employees, addresses topics that store managers care about, such as IT, human resources issues and loss prevention. A lot of that data has been documented and distributed to retail staff, but making it available and searchable online is more convenient for store employees, Brown says.

For management, the RightNow software lets Brown record and track the incidents and inquiries that come into Ulta's support center. "Previously, we were just recording everything in an Excel spreadsheet, which is a pretty laborious, pretty archaic way to do it," he says. Reporting features built into the Echopass platform track call volumes and help Ulta coordinate staffing requirements.

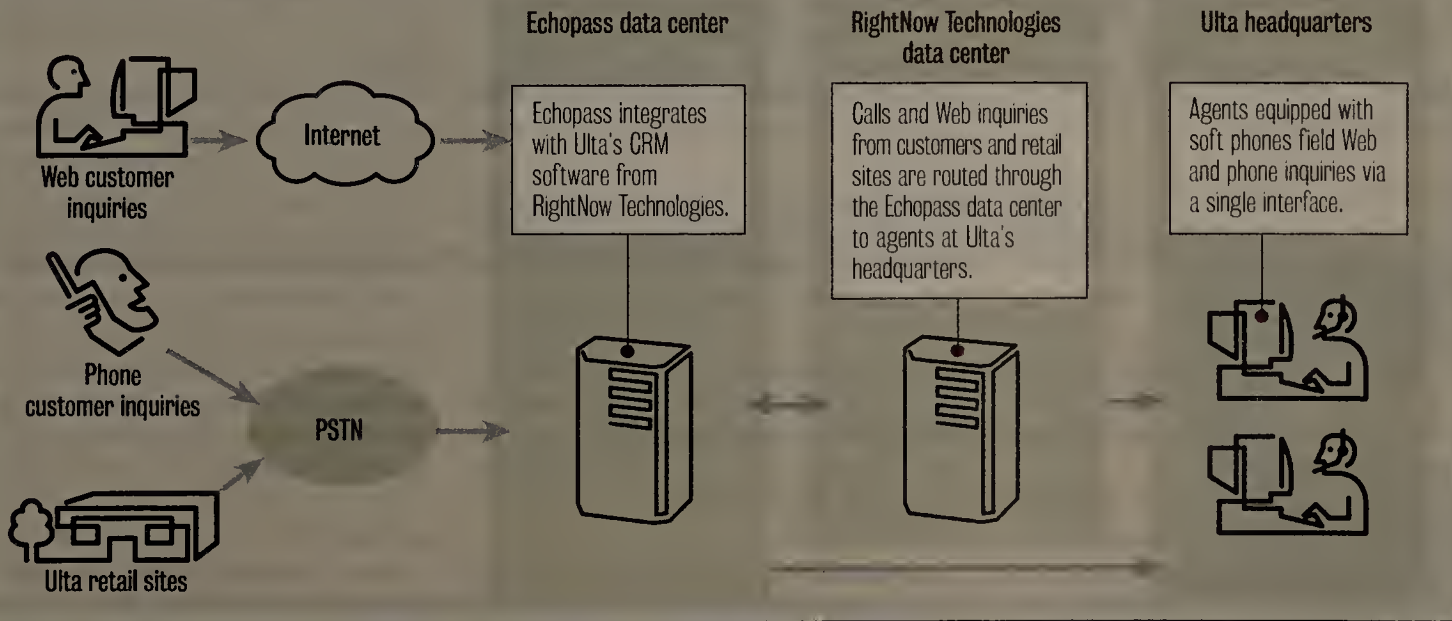
With nearly one year of data accumulated, Brown says he will have a better handle on seasonal demands. "I can get a very accurate sense of what to expect for the next holiday season, for example, so that we are staffed appropriately," he says. "That's been a big benefit that I've seen so far."

Ulta has been able to reduce its staffing and outsourcing costs because of the new systems. It no longer uses a third-

See Salon, page 26

Boutique communications

Salon chain Ulta relies on hosted call-center technology from Echopass to route calls and messages from retail sites and customers.


Echopass data center
RightNow Technologies data center
Ulta headquarters
Web customer inquiries
Internet
Echopass integrates with Ulta's CRM software from RightNow Technologies.
Calls and Web inquiries from customers and retail sites are routed through the Echopass data center to agents at Ulta's headquarters.
Agents equipped with soft phones field Web and phone inquiries via a single interface.
Phone customer inquiries
PSTN
Ulta retail sites

NET INSIDER

Scott Bradner

Then there could be 3 Bells (or 1)

In 1984 the old AT&T monolith was broken up into seven RBOCs and a long-distance and manufacturing group that retained the AT&T name. A dozen years later, a revision of the Telecommunications Act touched off a decade of telecom mergers and divestitures, and today only four major telecom operating companies provide local, long-distance and cellular service in the United States — a number that will reduce to three if the proposed AT&T acquisition of BellSouth goes through.

That reduction may or may not make any real difference. I fully expect that the FCC will think this acquisition does not affect the level of competition for phone service negatively and may, as it has done many times in the past, claim that the deal will "facilitate competition" (for example, see www.nwdocfinder.com/2529).

For once I might agree, at least to part of this conclusion. The acquisition will not harm competition for local phone service among the RBOCs, because there is none today. Despite promises made at the time of the AT&T breakup, none of the Bells seriously tried to invade the geographic territory of the others. They could all merge again into one company, and it would not diminish the noncompetition in this area.

There has been competition in other areas, specifically long-distance and wireless, but neither of those will be affected much, because the combined company picks up only one player in each category. There has been some competition for the enterprise market that might be slightly reduced by this acquisition.

The mantra from the FCC over the past few years has been that the real competition will come from alternate technologies. For example, the FCC assumes that cable TV-based voice service will compete with traditional line-based phone service from the Bells, or that the Bells could offer cable-TV-like video services to compete with the cable TV companies. This proposed acquisition gives the FCC another chance to spout that mantra.

Should you care about AT&T buying BellSouth? I do not know. Obviously, the gargantuan new company, as well as a possible gargantuan Verizon/Qwest combination someday — and the giant merged cable TV companies that may follow — are not going to make it easier for customers' voices to be heard in Washington, D.C. The bigger these companies get, the more reluctant Washington will be to let them fail, and the companies will use that to their advantage.

Many of us have high hopes for the Internet as a competitive force for voice and video, along with data. But unless there are strong regulations requiring network neutrality, the Internet, at least for home use, will just be a captive pipe owned by a telco or cable TV company and will not be a competitive factor (see "Father knows best," about net neutrality, www.nwdocfinder.com/2530).

I see no reason to think that cable TV companies and telcos, both of which have an incentive to try to extort money from content providers, will try to compete on the basis of network openness. Municipal and wireless ISPs may change the picture, but not soon.

For at least the next decade, I expect we will have to rely on regulation or the kind hearts of the carriers.

Disclaimer: I'm not sure that even the Harvard med school could find a kind heart in a carrier, but I did not ask them for an opinion, so the above is mine.

Bradner is a consultant with Harvard University's University Information Systems. He can be reached at sob@sobco.com.

Winternals software aims to protect desktops

BY JOHN FONTANA

Winternals last week released software that lets users tighten down desktop security by controlling user administrative rights on an application-by-application basis.

With Protection Manager, users get all the benefits of the much-anticipated User Account Control feature Microsoft is including in Vista when it ships later this year, but the Winternals software will be compatible with older versions of the operating system. Protection Manager also blocks all unauthorized executables from running.

With Windows today, users have desktop privileges that are so crippled they can perform only a handful of functions beyond normal operation, or they have administrative rights on their desktops, which lets them — and any malicious code — do just about anything, including writing to the registry.

Many applications, however, require the desktop to be set for administrative rights so they can execute properly. Microsoft estimates that as many as 80% of Windows users run in administrative mode.

"We were having to rebuild desktops every three to four months to clear off spyware," says Robert Guidarini, IT manager for Clear Channel Communications, which owns 1,200 radio stations nationwide. Guidarini manages nearly 100 desktops in Clear Channel's Minneapolis office that he says need to be set for administrative rights for applications to run. Because disk jockeys and other staff are using those computers to work online and offline, Guidarini has installed Protection Manager, which lets him set administrative rights that allow only in-house and legacy applications to run.

> "We think there is a gap in Group Policy, because you can't elevate or reduce rights for applications."
>
> *Wes Miller, Winternals product manager, about Protection Manager.*

"These machines are mission-critical," Guidarini says. "If our on-air delivery computer goes down because Joe Bob installed a program he found on the Internet, we could lose upwards of $100,000 an hour."

Protection Manager is similar to products from AppSense, SecureWave and WebSense. In addition, vendors such as FullArmor and Desktop Standard offer extensions to Microsoft's Group Policy technology that let IT staff limit local administrative rights.

"We think there is a gap in Group Policy, because you can't elevate or reduce rights for applications," says Wes Miller, product manager at Winternals. "And we enable zero-day control of all applications that can run on Windows." That control complements other security software, Miller says, because it can be used to block malicious code from running before virus signatures are updated.

Protection Manager is installed on a central server and works using desktop agents that intercept applications before they execute and then checks them against a set of policies that dictate whether they can run and with what desktop privileges. Administrators configure File Sets using the Protection Manager console.

File Sets, which are lists of applications, are then assigned one of four roles: deny execution, allow to execute with administrative privileges when required, allow to execute with limited user privileges and allow to execute normally.

The console lets users delegate role creation to a number of administrators, who can be contacted by users via a real-time communication channel to request role changes. The software agent pulls updated information from the server each time a new application tries to execute. If the application is not in a File Set, it is not allowed to execute. Protection Manager also reports on every application that tries to execute on the desktop, including malicious software.

Protection Manager supports Windows 2000, XP, and Windows Server 2003 computers. The Protection Manager administrative console is $69. Agents to protect servers are priced starting at $250; client agents are $25 per computer. ■

Salon

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party firm for handling Web response, for example, which dropped its labor expenses by one-third.

At the same time, customer service has improved, Brown says. Call-wait queues have dropped from 3.5 minutes on average to 45 seconds. The number of customers who hang up before being served has dropped from 25% to 7%.

The self-service features from RightNow have helped deflect a significant number of inquiries to online channels. As a result, Ulta can offer longer call-center hours despite having fewer staff members, Brown says. Ulta's in-house support agents are spending less time on routine queries and more time on higher-level inquiries, he says.

Looking ahead, Brown will consider deploying some of the features he's not yet using from Echopass. For example, the Echopass platform can do skills-based routing, but Ulta so far hasn't trained its support agents to specialize in particular areas. Ulta may go in that direction if reporting tools reveal areas where it makes sense to have specialized agents — such as a significant number of calls related to the salon's rewards program.

Likewise, all of Ulta's agents today work from a single location, but the salon also may explore using distributed agents to take calls in the future, Brown says. ■

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EYE ON THE CARRIER

Johna Till Johnson

AT&T/BellSouth: Winners, losers

AT&T's announced plans to pick up BellSouth in a $67 billion merger ushers in a whole suite of questions for IT executives. Will the deal even go through? If it does, who wins, who loses and why? And most significantly, how should this affect your short- and long-term carrier negotiations strategies?

Let's take them in order:

Will the deal go through? Probably. By previously signing off on the Verizon/MCI and AT&T/SBC deals, the Department of Justice has set a fairly firm precedent. That makes it pretty challenging to reverse course, particularly when the Department of Justice has repeatedly gone on record saying that "new forms of competition" such as cable and wireless maintain the competitiveness of the telecom landscape. That said, look for the Justice Department and others to win concessions from the telcos as a condition for a deal. Net neutrality is the most logical sacrificial lamb (read on).

Who wins? Large enterprises have been wishing for more stability in the telecom market for several years. I've spoken with dozens of IT executives at large firms who'd prefer a handful of large, stable providers that can assume responsibility for delivering voice, video and wireless traffic end-to-end, and are even willing to pay more for better service. The AT&T/BellSouth deal brings that possibility one step closer to reality.

Other winners? Proponents of net neutrality just got a golden opportunity to push their agenda through. As I noted in a previous column, the net neutrality buzzword tends to oversimplify a complex issue — but that's beside the point. Net neutrality proponents can now pressure regulators to make the AT&T/BellSouth deal contingent upon net neutrality — and mark my words, the telcos will cave on this one.

Who loses? For starters, it's hard to see how the deal offers much, if any, benefit to consumers — though in all fairness, consumers haven't seen much true competitiveness for the past couple of years. The real issue will arise if the telcos use their reconstituted power to limit access to particular sites, or to prohibit certain kinds of traffic from their networks. And as I've said above, that will happen only if the net neutrality folks fall asleep at the switch.

The deal also raises challenges (though not insurmountable ones) to alternative players such as Masergy Communications and Megapath, for which the ability to offer managed end-to-end services is a key differentiator. Finally, telecom equipment manufacturers have a more circumscribed base of customers — meaning they'll need to seek customers elsewhere, particularly from the cable firms, though this may turn out to be a blessing in disguise.

What's an IT executive to do? Keep issuing those matrix RFPs to every carrier that can participate. As you move through the negotiations cycle, make sure you nail down terms and conditions, particularly service-level agreements and technology refresh clauses. Make sure the final contract includes firm "out" clauses for failure to comply. And nurture relationships with cable companies and alternative carriers, to keep the increasingly powerful incumbents on their toes.

Johnson is president and senior founding partner at Nemertes Research, an independent technology research firm. She can be reached at johna@nemertes.com.

Choosing sides for wireless: Wi-Fi or EV-DO?

BY JOHN COX

If your company is in Tempe, Ariz., you face a decision: Should you spend money on metro-area Wi-Fi services or cellular data services, such as 1X EVDO?

As with most things wireless, the answer is not simple. You might pay for both, depending on your users' requirements and applications.

Yet Wi-Fi providers have been touting lower monthly fees and higher bandwidth compared with cellular providers for services such as Internet access, VPN connections to corporate networks and VoIP calls.

To deliver these services, mesh networks based on the IEEE 802.11 standards are being set up to blanket large areas, such as the Wireless Access Zone Tempe (WAZ-Tempe) network, which was completed just last week by the network operator NeoReach Wireless, a division of MobilePro. Like nearly all such networks, WAZTempe operates in the unlicensed 2.4-GHz and 5-GHz radio bands.

The network consists of 550 outdoor, multiradio access points from Strix Systems. Each access point has two 802.11b/g to connect to client devices, and two 802.11a radios to route the traffic with neighboring access points. At 12 locations, these devices are wired into a newly built fiber Gigabit Ethernet ring, from Cox Communications.

NeoReach authenticates users via 802.1X over an encrypted connection, assigns them to different virtual LANs and can enforce varying QoS depending on what plan a customer has chosen, says Ryan McCaigue, director of engineering for NeoReach and the man who designed and deployed the Tempe network.

So far, NeoReach and the retail network providers who offer service over the wireless infrastructure have signed up 1,500 subscribers. A key target is businesses, which are offered higher bandwidth, more stringent QoS guarantees and specialized equipment, such as high-gain or direction antennas.

Plans start at $29 a month, with bandwidth of up to 384Kbps upstream and up to 1Mbps downstream. By contrast, McCaigue says his own cell phone package costs about $60 a month for voice only, with the option of spending another $40 a month for data services at about 200K to 400Kbps.

Sounds like a no-brainer for network executives, right?

Well, no, according to critics.

Market research firm The Yankee Group just issued a report called "Myths and

See Wireless, page 30

Data services on Wi-Fi vs. 3G nets

Municipal wireless nets, based on 802.11 standards, are mushrooming, and 3G nets such as EV-DO and UMTS are spreading in coverage. Which makes sense for your mobile workers? **Questions to ponder:**

- What kinds of applications are you running?
- What kinds of portable devices will you be using?
- Can you identify the total cost of the mobile system, including monthly service fees and capital outlay for devices, software, training and so on?
- Where and how far are your mobile workers traveling?
- Can the Wi-Fi provider monitor and adjust the net to handle unexpected interference sources?
- What kind of throughput do you need?
- What kind of security do you need?
- What service-level guarantees do you need?
- What are the providers promising in terms of performance and uptime? What evidence is there that they can deliver?

Short Takes

■ **Verizon Business** last week announced that it has "IP-enabled" its network-hosted contact center service. Verizon's Web Center service now enables businesses to communicate with customers using both traditional and IP telephony. This lets Verizon Business activate a range of IP telephony services, including IP Web Center, Hosted IP Centrex, IP Integrated Access, IP Flexible T-1 and IP Trunking at a given location.

Wireless

continued from page 29

Realities of Wi-Fi Mesh Networking." The basic conclusion was summed up by co-author Phil Redman. "There is a limit to how far you can push an unlicensed radio technology," he says. That's true even as the rapid pace of Wi-Fi innovation, including 802.11n that promises bandwidth of 300M to 400Mbps in 2007, enables providers to push that limit.

But providers such as NeoReach and vendors such as Strix, Tropos, BelAir and others point to scores of metro-area deployments around the United States as evidence that Wi-Fi mesh networks are viable.

"If we're talking about just the technology, then these types of networks designed to cover what I call 'localized regions,' with the intention of having a modest level of usage, make sense," Redman acknowledges.

But whether Wi-Fi networks can succeed as sustainable businesses is unclear, he says. "It's very difficult for a [Wi-Fi] business model to work in isolation from another service that has a reasonable level of market scale," such as wide-area cellular services, he says.

Bob Egan, director of emergent technologies at Tower Group, a consultancy, is also skeptical about Wi-Fi mesh being able to deliver for mobile enterprises.

"802.11 was never intended and will never be a metro architecture," says Egan, an author of the original 802.11 standard. "Metro [Wi-Fi] nets are just a venture capitalist wish, and not an architectural reality."

He suggests imagining yourself in a Starbucks working on your wireless laptop to finalize a customer deal and at the next table, three teenagers are playing on a bandwidth-hungry wireless gaming console. "You're trying to make money. And they're not," Egan says. "How does this make sense from a business standpoint?"

Sprint's EV-DO service offers businesses two plans. The first, Flexible Connection, is a 40MB plan for $40 per month. Customers pay $.001 per kilobyte over 40MB with a maximum monthly charge of $100. The second, Unlimited Connection, is $80 per month for unlimited wireless data access.

A sometimes hidden cost of Wi-Fi service is having to pay vendors in separate locations for access during the course of a work day or work week. However, that's less a problem when the enterprise has contracts with Wi-Fi aggregators.

Where EV-DO is available, the services average 400K to 700Kbps data transmission speeds, with a maximum of up to 2Mbps. Using the same wireless access card, customers can access the Internet using Sprint's slower PCS network, which is equivalent to using a dial-up modem or DSL.

Those speeds, along with uniform, consistent, simple and secure access no matter where you are in the service area, seem to be driving enterprise adoption of cellular data services. Sierra Wireless builds cellular cards for several carriers, including Sprint and Verizon. For the newest EV-DO and High Speed Downlink Packet Access wireless cards, "our growth has been dramatic," says Greg Speakman, director of marketing for mobile products for Sierra.

For his part, NeoReach's McCaigue isn't anticipating network problems in Tempe. Interference issues can be sidestepped and two client radios in each access point provide more than enough connections and capacity for the expected density of simultaneous users, he says.

Senior Editor Denise Pappalardo contributed to this story.

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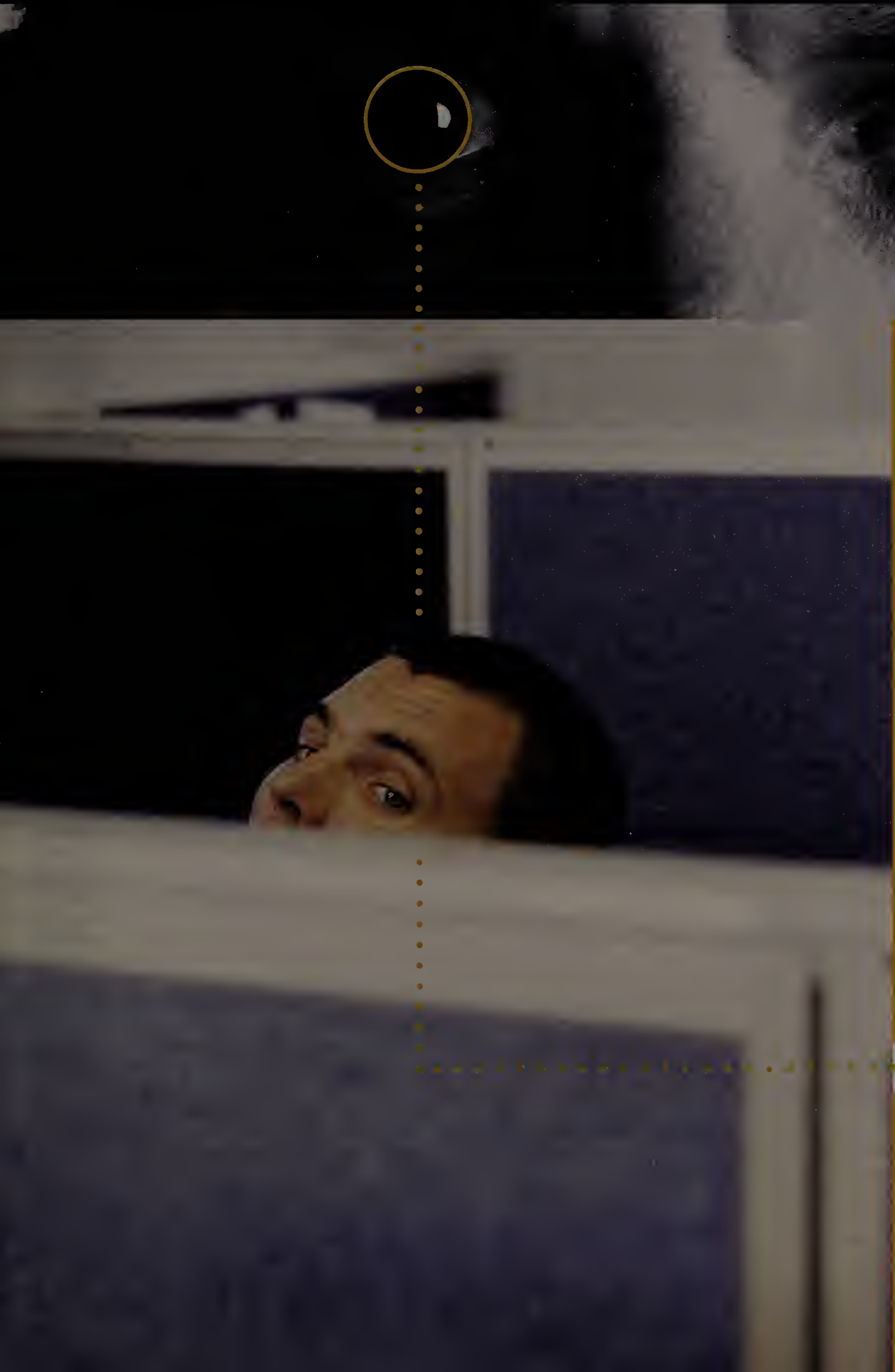

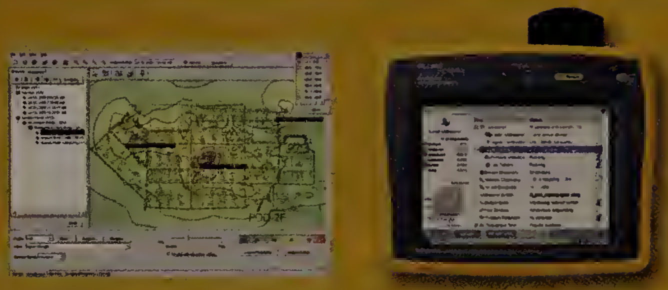

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SPECIAL FOCUS PROGRESS REPORT: ECRIT

IETF taking on 911 problem within VoIP

BY CAROLYN DUFFY MARSAN

The Internet engineering community is making progress on the thorny issue of how best to route emergency communications such as 911 calls over the Internet.

This yearlong effort is important for companies and government agencies that are migrating to VoIP and must ensure that police and firefighters can locate and respond to 911 calls placed from IP phones in their office buildings.

The IETF hopes to have a technical solution for the 911 problem ready for testing by year-end. The IETF effort is called ECRIT for Emergency Context Resolution with Internet Technologies.

"From a societal perspective, ECRIT is one of the most important problems that the IETF is undertaking right now," says Henning Schulzrinne, chair of the department of computer science at Columbia University and author of several documents under consideration by the ECRIT working group.

The ECRIT effort will have a major impact on service providers, which will bear most of the cost required to retrofit IP networks to determine the location of IP-based 911 calls and deliver them to the closest emergency call center. Experts anticipate upgrades for ECRIT will cost wireline and wireless carriers millions of dollars, which they can recoup from consumers.

"Nobody is expecting carriers to do this for free," Schulzrinne says. "They are already collecting money for 911 services.... They'll have to spend some money, but there is a funding stream available."

The Public Switched Telephone Network is configured to recognize numbers such as 911 as a call for emergency services. Carriers know the physical location of the originator of these calls.

The Internet, however, was not designed with emergency communications in mind. Until last November, VoIP service providers were not required by law to provide 911 services.

"What consumers don't know is that if you buy a VoIP system, you may not be connected to the 911 system. It's on a case-by-case basis," explains Greg Rohde, executive director of the E911 Institute in Washington, D.C. "The situation with VoIP is that providers started offering service to customers without any requirement that they connect to 911.... Now we're in the process of bootstrapping the system."

The FCC issued an order last June that gave VoIP carriers until Nov. 28, 2005, to provide 911 services.

"No carriers are 100% compliant yet," Rohde says. "A lot of credit is due the VoIP carriers, who have been doing a massive effort over the last six months to meet the FCC order."

What the ECRIT working group will provide is a standard approach to handling IP-based emergency calls. The IETF approach will support not only voice calls made over the Internet but also text messaging and video transmissions.

"There's a definite need for a standards-based approach to this problem," Rohde says. "It would have been nice if it was done a couple years ago, but it's still incredibly important work."

The ECRIT group plans to produce documents that outline requirements, terminology and security issues. The documents will explain how to identify IP-based emergency calls, how to associate these calls with physical locations, how to route them based on physical locations, and how to discover the media stream types available from the caller.

"Nobody is expecting carriers to do [ECRIT] for free. They are already collecting money for 911 services."

Henning Schulzrinne, an ECRIT author and chair of the department of computer science at Columbia University

The stickiest point is how to map IP-based emergency calls from a particular geographic location to the nearest public safety call center. The working group is debating whether to use a protocol developed by domain name registries or Web services to handle this mapping function.

This is how ECRIT will work: When an IP phone dials 911, the IP phone will obtain its location information, such as a street address or office number. The IP phone will query a database using a new mapping protocol that will take its location information and find the appropriate emergency call center. The IP phone will then place a call to that emergency call center. The call will be marked so that IP equipment can recognize it as an emergency call and route it correctly. The emergency call center will receive the IP-based 911 call along with the location of the caller.

One new development with ECRIT is the creation of a global identifier for emergency calls such as 911 in the United States or 112 in Germany.

"There are over 60 emergency calls globally, and we need to converge them into one identifier," explains Marc Linsner, chair of the ECRIT working group and a consulting engineer with Cisco. "If a person comes from Europe to the U.S., he can call for emergency services on his IP cell phone. All routing identities will identify the emergency call and flag it."

Many components at the edges of IP networks must be upgraded to support ECRIT. IP phones must be enhanced to acquire their location information. They will pass that location information on to call routing proxy servers, run by service providers, which must be upgraded to support the new ECRIT mapping protocol. Emergency call centers also must be upgraded to receive IP-based calls.

"The major component that will require the most investment is on the ISP side because they have to provide the location information," Schulzrinne says. "The system is not going to work unless the ISP is able to hand the customers information about where they are currently. Service providers know this information today because they send out bills and repair crews, but now they will have to share that information."

ECRIT is designed for enterprises, too. Companies that run VoIP systems will need to upgrade their IP phones and IP PBXs to handle ECRIT. They'll also need to create a database with the location of every IP address on their networks.

"My advice to enterprise IT managers is to make sure your wiring database is in good shape," Schulzrinne says. "You need to know which Ethernet jack and which port is in each office."

Jon Peterson, a NeuStar fellow and a member of the IETF leadership who is advising the ECRIT working group, says enterprises may end up using DHCP to acquire the physical locations of IP addresses. "It's very simple to provide DHCP mapping to push location information down to the phone," Peterson says.

Until ECRIT standards are available, service providers and enterprises are using proprietary workarounds to handle emergency calls over IP networks.

"We sell a service today where we offer an API, and the VoIP service provider hooks up to us. They give the 911 call to us, and we give the mapping information back to them," says Roger Marshall, editor of one of the ECRIT working group documents and senior member of the technical staff at TeleCommunications Systems, which supports Vonage and other VoIP carriers.

"ECRIT comes up with a more standard way to identify a [Public Safety Answer Point], one with less variability in options and one that is more ubiquitous. And ECRIT is scalable to a global level compared to what is available today," Marshall says.

The Food and Drug Administration (FDA) uses Cisco's Emergency Responder System on its White Oak Campus in Montgomery County, Md. The system alerts on-campus security staff as well as the county's emergency call center when a 911 call is made from the all-VoIP White Oak buildings.

Glenn Rogers, deputy CIO of the FDA, says three things happen when a 911 call is made from the campus: An e-mail is sent to designated personnel with information about the user, phone number and location of the caller; the system places a phone call to on-campus designated phone numbers and informs personnel of the extension where the call was made; and an alert pops up on the monitoring system that security personnel access. This alert must be acknowledged before it will stop the notification process.

Rogers says the ECRIT standards "are important, but the challenge for determining a physical location is great for those who use [wireless] LAN cards in laptops or if it is dependent on the user keeping their location information updated on their home PCs."

IETF leaders say it will be several years before ECRIT systems are widely deployed.

"This is not something that is going to get changed overnight," Peterson says. "What we're trying to do is focus on the pieces of the puzzle that we know are going to need to be there." ■

WHICH IP PHONE SYSTEM RANKS BEST?

- * Best of Year 2005 – *PC Magazine*
- * Rated Excellent – *InfoWorld*
- * Tested 'A' Rating – *VoIP Magazine*
- * Highest Customer Satisfaction – *Nemertes*

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TECHNOLOGY UPDATE

AN INSIDE LOOK AT TECHNOLOGIES AND STANDARDS

802.11T puts WLANs to the test

BY FANNY MLINARSKY

Buyers of Wi-Fi equipment and systems must be assured that all products have the performance and stability to carry mission-critical applications and data. However, testing of Wi-Fi, or 802.11, devices and systems for performance and stability is a challenge for the industry because of the complexity of the 802.11 protocol. That is compounded by the inherent mobility of the wireless devices and the prevalence of radio frequency interference.

In July 2004, the IEEE formed the IEEE 802.11T Task Group to develop a test specification document, "Recommended Practice for the Evaluation of 802.11 Wireless Performance," expected to be completed in January 2008. By forming the task group, the IEEE has acknowledged the need to provide users with an objective means of evaluating functionality and performance of 802.11 products.

The 802.11T document defines test metrics in the context of use cases. The three principal-use cases are data, latency sensitive and streaming media.

Data

Data applications do not impose critical requirements on a network and include Web downloads, file transfers, file sharing, e-mail and others. Data-oriented traffic is typically transmitted using low priority. Performance test metrics important for data use include throughput vs. range, access-point capacity and access-point throughput per client.

Latency sensitive

Latency-sensitive applications are time-critical, such as VoIP over Wi-Fi. QoS requirements for these applications include limits on voice quality (latency, jitter and packet loss) vs. range, voice quality vs. network load, and voice quality vs. call load and Basic Service Set (BSS).

BSS is a single access-point network, similar to a single cell in the cellular environment. BSS transition is the process of a mobile station roaming from one access point to another.

Streaming media

Streaming-media applications include real-time audio/video streaming, stored content streaming and multicast high-definition television streaming. These applications require the most stringent QoS, including bandwidth and latency guarantees. Performance metrics include video quality (throughput, latency, jitter) vs. range and video quality vs. network load.

The metrics are classified as primary and secondary. Primary metrics directly affect the user experience, such as voice quality. Secondary metrics affect the primary metrics; for example latency, jitter and packet loss affect voice quality.

Test environments

In addition to the metrics previously cited, the current version of 802.11T specifies such metrics as throughput vs. path loss, fast BSS transition, receiver sensitivity, and access-point capacity and association performance. 802.11T defines two test environments — conducted and over-the-air. Most of the tests in the draft require a conducted environment for emulation of motion and for measurement repeatability.

Conducted environments provide RF isolation and emulate controlled motion so that mobile devices and systems can be tested in a repeatable and prescribed manner. In a conducted environment, each device in the test setup is placed in a shielded chamber for isolation. RF cables connect the antenna ports of each device to other devices through programmable attenuators. The attenuators emulate distance by virtue of controlling the path loss among devices in the test setup. Shielding and filtering are employed to protect the test setup from outside interference and to achieve device-to-device isolation.

Device isolation eliminates signal paths other than through the attenuators. Isolation between any two devices in a test setup must be greater than 110 decibels, because of the wide dynamic range of 802.11. Such isolation is difficult to achieve, particularly in the 5GHz band.

Without proper testing, wireless equipment and networks cannot be relied on to deliver the required throughput, client capacity, security or fault tolerance for acceptable enterprise network performance. The goal of 802.11T is to enable testing, comparison and deployment planning of 802.11 wireless devices based on a common and accepted set of performance metrics, measurement methodologies and test conditions. 802.11T will help ensure that 802.11 products meet the challenges and demands of enterprise networks, and will help IT managers choose the fastest and most robust 802.11 products that are resilient to adverse network conditions.

Mlinarsky is founder and CTO of Azimuth Systems. She can be reached at fanny_mlinarsky@azimuthsystems.com.

HOW IT WORKS: 802.11T

802.11T provides a uniform way to test Wi-Fi devices for performance and stability.

1. A manufacturer's research and development group is ready to test the performance of a new 802.11 device.
2. The manufacturer's lab follows 802.11T to qualify the performance of the product. At the same time, a publication such as *Network World* runs product benchmark testing in its labs using 802.11T as the test specification.
3. The Wi-Fi Alliance certifies the product.
4. The product is ready to ship.

Got great ideas?

- *Network World* is looking for great ideas for future Tech Updates. If you've got one, and want to contribute it to a future issue, contact Senior Managing Editor, Features **Amy Schurr (aschurr@nww.com).**

Ask Dr. Internet

By Steve Blass

Are tools available that can deploy the same data-collection forms to the Web and desktop? Both sets should be generated from a single source model, and the desktop version should be able to post data to the same back end used by the Web version.

Check out Formatta, which has the most robust commercial offering for deploying identical forms to the Web and desktop. The client application is free. The server-side application is not.

Adobe PDF forms are another popular commercial form-processing solution. Extensions for Acrobat reader at www.formrouter.com let users save filled-out PDF forms locally for later submission.

There also are commercial and open source tools that use XForms implementations. They can be used to generate multiple versions of form sets for the Web and desktop from a common set of XML files that describe the fields and data to be collected. One commercial example is the XMLSpy family of products (www.altova.com), which includes Web and desktop versions of a free XML content editor named Authentic. Recently, Nuxeo released an XForms engine for Eclipse that generates forms for the desktop in Java. Now the same XForms source files can be used to generate forms for the Web and desktop. XForms rendering add-ons are available on the Web for all but the most obscure browsers.

Blass, a network architect at Change@Work in Houston, can be reached at dr.internet@changeatwork.com.

Using U3 to create portable programs

GEARHEAD
INSIDE THE NETWORK MACHINE

Mark Gibbs

Last week we began a discussion of U3, an emerging standard for controlling and managing applications stored on a USB, flash or thumb drive.

This is a very cool idea that creates portable programs — in the sense that they can be carried on physical media from one machine to another and be run with or without being installed. When they exit, they leave no data behind.

As cool as U3 is, a serious issue is that it is very narrowly focused, applying only to Windows 2000, XP and 2003. That leaves all those Windows 95, 98 and ME systems out in the cold (and rightly so) along with Macs and Linux.

Programs engineered to be U3-compatible are different from regular Windows programs because U3 applications are not hard-wired to the directory structure or any operating system components on the host computer and are independent of the Windows Registry.

There are three types of U3 applications: U3 LaunchPad (U3LP), U3 LaunchPad+ (U3LP+) and U3 Aware (U3A).

U3LP Applications are Windows applications that are installed on the U3 device along with their configuration data, user preferences and associated files.

U3LP+ applications are like U3LP applications but are bundled with and use the U3 Device API (DAPI) dynamic link library (DLL). The U3 DAPI DLL, which uses C-based function calls, lets applications communicate directly with U3 thumb drive hardware. For example, applications that use cookies stored on the U3 drive or that check the U3 thumb drive's unique ID must be compliant with U3LP+.

U3A applications are programs installed on the host PC that use the U3 DAPI DLL to detect and communicate with U3 thumb drives inserted into the host. These are standard Windows applications with specific support for U3 devices. The U3 Software Developers documentation (see www.nwdocfinder.com/2534 — registration required) gives the following examples of U3A applications:

- A Windows Login service that uses U3 smart devices as tokens.
- A Windows backup tool that supports U3 devices, enabling data to be securely backed up to a password-protected private area on the device.

U3 takes up just over 5MB of thumb drive storage and creates two partitions — the U3 documentation refers to these as memory domains (more may be added) — that the Windows USB drivers interpret as drives. One drive is read-only and emulates a CD-ROM; the other is read/write.

The read-only drive holds three files: LaunchPad.zip, which contains the U3 system files; LaunchU3.exe, which copies the zip file to the host, unpacks it and presents the user interface; and autorun.inf, which automatically runs LaunchU3.exe if the PC's CD auto-run feature is enabled. LaunchU3.exe also can be installed to auto-run U3 drives even if the PC's CD auto-run feature is disabled.

The read/write drive can be a public or private area or both. Private areas require that you log on to the DAPI services before you can see their contents; public areas are visible as soon as the U3 thumb drive is mounted by the Windows USB driver.

On a typical PC, inserting a U3 thumb drive will cause the LaunchPad.exe program to run; then, if the read/write drive is public, it opens and the program appears in the system tray.

Clicking on the LaunchPad.exe system tray icon presents a user interface with a list of the programs installed on the U3 device, as well as a list of functions including Explore U3 Drive, Manage U3 Programs, Status and Settings, Help and Support, About U3 Drive and Download Programs. Vendors building U3 products can add their own logos and links to the interface.

The Manage U3 Programs function lets you add or remove any program, shows you information about each program (description, program size, last run and so on) and lets you set it to run automatically when the LaunchPad loads.

What is the U3 system like in use? You can find out next week.

In the meantime, what are you using USB-flash-thumb-whatever drives for? Frank admissions to gearhead@gibbs.com. Bob can admit as well. Oh, and check out Gibbsblog.

CoolTools

Quick takes on high-tech toys. **Keith Shaw**

The scoop: Vlog It software, by Serious Magic, about $50.

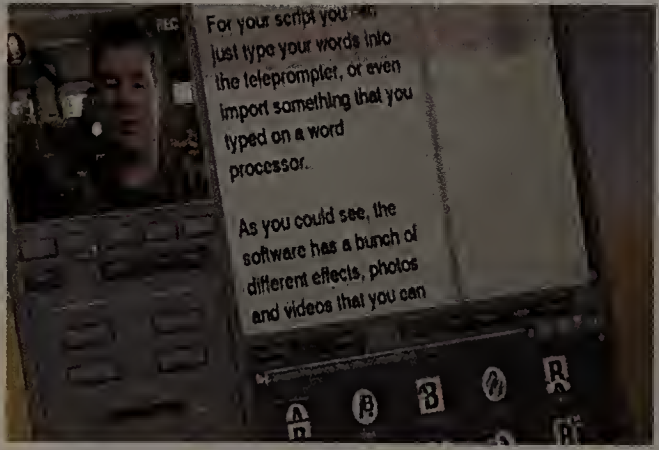
What it is: Vlog It is a stripped-down version of the company's Visual Communicator software, which lets users create their own video communications with only a PC and camcorder (or Web camera). Just like the Visual Communicator family of products (VC Web and Studio are others), Vlog It includes a teleprompter area that lets users write a script and employ video effects (including transitions, wipes and over-the-shoulder graphics) that give the appearance of a professional video broadcast. When users record videos using the software, the teleprompter scrolls and they can read their script to the camera, just like a news anchor. The Vlog It name change is designed to appeal to bloggers who want to add video blogs (or vlogs) to text-based blogs.

At $50, the software doesn't include as many features as the higher-level Visual Communicator products, and you also can't create your own graphics. You can modify existing ones, but I preferred using Visual Communicator's basic graphics editor to create, for example, a customized title screen. Like Visual Communicator, Vlog It lets you add video files, audio clips and photos to your vlog.

Through a partnership with PlayStream (which hosts videos for $7.95 per month, with the first 30 days free), users can publish their shows directly through the Vlog It software. Users can also save their videos to a hard disk, send them via e-mail or to a different FTP server. After a show is published, the creator can post a vlog to a blog by dragging and dropping the vlog's thumbnail into a standard blog authoring tool and then writing a text blog post.

Why it's cool: Creating somewhat professional-looking video communications without having to spend a lot of money on production services should appeal to bloggers — especially because they need only a Webcam and PC to get up and running. But there's a business appeal to this software as well. Managers who want to communicate with employees in a fun and interesting way can use the software to provide weekly or monthly updates. An IT manager who wants to show the best ways users can protect themselves from viruses or spyware can use the Vlog It software instead of sending out an e-mail. Anyone using the software for the first time will come up with more show ideas. For $50, it's a steal, although users who get addicted to the software will probably want to upgrade to the Visual Communicator or Visual Communicator Studio software for the extra features.

In a lot of cases, Vlog It can cut down on the need for video editing software, saving lots of time in the process. For example, this week's Cool Tools video show (www.nwdocfinder.com/2527) features a report on Vlog It software that took less time to produce than it would have using traditional editing and production techniques (although we cut down on the number of cuts and B-roll video that we normally use).



For your script you can just type your words into the teleprompter, or even import something that you typed on a word processor.

As you could see, the software has a bunch of different effects, photos and videos that you can

The Vlog It interface includes a teleprompter area, where the user can type a script, a preview window and a zone for launching effects.

Some caveats: The software doesn't support output to QuickTime format, and video blog postings created with Vlog It cannot be viewed on a video iPod. There's also the "brush script" effect — Vlog It offers so many video effects that first-time users may go overboard and put in so many that they produce a visual headache.

Grade: ★★★★⯪ stars (out of five)

Shaw can be reached at kshaw@nww.com.

E-MAIL NEWSLETTER SHOWCASE: Network optimization

Forum raises concerns with app acceleration

BY DENISE DUBIE

Network World's Application Acceleration across the WAN (www.nwdocfinder.com/2454) online forum last week brought out myriad vendors, responding to network managers' concerns about investing in optimization technologies.

Customers that logged in to the forum anonymously inquired about current and future developments among vendors, worrying that today's investments could become irrelevant in the near future. Considering the relative immaturity of the market and recent acquisitions, customers admitted their concern about buying tools available today in a market that will inevitably change.

"Some of the applications that are WAN-hostile [MAPI and SQL], or at least difficult [Common Interface File System and Network File System], are being fixed or replaced," one forum member said. "Will we see partnerships between application vendors and accelerator vendors, interoperability between vendors, standards, or will they just disappear as the technology moves into the routers and servers?"

Another pain point for customers involved the financial and management burden of deploying multiple best-of-breed boxes at numerous distributed locations. Customers asked if vendors would work on a consolidated set of tools and start to incorporate software into their offerings.

"We have 12 locations, 11 remote. At each location, there is a very small amount of files, say under 20 Excel, Word, and others, which we would like to have quick access to from any location to view or edit," another man explained.

"We only have one or two users at each location so having to buy a box for each location becomes expensive."

Another network professional urged vendors to provide acceleration capabilities to home office, mobile or VPN-connected end users.

"I am able to get great bandwidth optimization/traffic acceleration for my network users from site to site, but the remote users who work from home and connect over a VPN, get none of these gains," the woman detailed.

"It's all pass-through traffic on these devices since there is no corresponding device/tool on the VPN users' side to decompress the traffic," she said. ■

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Two experts debate the effectiveness of a new security technology.

FACE-OFF

Is anomaly detection the best way to prevent virus and worm attacks?

Yes

Paul Morville
Arbor Networks

To stop worms and malware, first you must know about them. In today's rapidly evolving networks, where attackers are often one step ahead of the products designed to thwart them, anomaly detection is an important innovation. Many vendors rely on signature detection to find network-borne threats. Customers often have to wait days to get a working signature for a new worm, leaving their networks vulnerable in the most critical period during a worm's release.

Network behavior analysis is one of the most robust and scalable security technologies classified recently by Gartner. At the core of network behavior analysis are anomaly-based algorithms used to identify emerging threats. Three types of anomaly detection are used in network behavior analysis:

- Protocol — detects packets that are too short, have ambiguous options or violate specific application layer protocols. Most useful for detecting host-level attacks.
- Rate-based — detects floods in traffic using a time-based model of normal traffic volumes. Most useful for detecting denial-of-service attacks.
- Relational or behavioral — detects changes in how individual or groups of hosts interact with one another on a network. For example, a normally quiet host that starts connecting to hundreds of hosts per second on the SQL port indicates a worm. Useful for a variety of threats, from worms and malware to insider misuse.

By applying anomaly algorithms best suited to the attacks they are designed to detect, anomaly detection can proactively identify zero-day worms, malware, acceptable-use policy violations and insider misuse. Because anomaly detection looks for substantial changes in network behavior, it is less prone to false positives, and requires less configuration and ongoing maintenance than many other security methods.

However, network behavior analysis doesn't end with detection. Once a threat has been identified, this technology allows operators to visualize good and bad or suspicious traffic, and contextualize it in relation to other traffic and historical roles.

A network behavior analysis system can take preemptive action, blocking a port on a switch, quarantining traffic to a separate virtual LAN, or applying a filter or access control list to lock down propagation. Behavior modeling is equally applicable to mitigation and detection.

For example, network behavior analysis systems can generate a filter to block traffic on a suspect port and simultaneously generate a white list for known good traffic, freezing the network in a known good state.

There's both an art and a science to applying anomaly detection. Effective use of the technology by security vendors requires deep experience with networks, threats and the appropriate anomaly detection algorithms for a given threat model. When done well, anomaly detection is extremely effective in finding and foiling network-borne threats and should be part of everyone's security tool set.

Morville is director of product management at Arbor Networks. He can be reached at paul@arbor.net.

No

Gil Arbel
CounterStorm

Network behavior anomaly detection does not provide a true security solution against viruses and worms. With the growing sophistication, speed and damage potential of today's virus and worm attacks, companies need a solution that actively defends their networks. The ingredients required to mount a meaningful defense against these new and virulent attacks include speed, accuracy and the ability to actively block attacks from spreading to other machines, systems and networks. Anomaly detection falls short in these areas and gives users a false sense of security.

Anomaly detection has three main drawbacks:

- It is too slow to detect fast-spreading virus and worm attacks. Anomaly detection vendors, by their own admission, permit attacks to affect a certain percentage of a network. This can translate into hundreds of machines being compromised before an attack is detected. In many cases, whole networks can be infected in a matter of minutes. Anomaly detection relies on network flow data, which is often reported at intervals of 15 to 45 minutes. With that kind of lag, an entire network can be brought down.
- It produces an enormous number of false positives. Anomalies can occur in a network at any time. Because anomaly detection is looking for an anomalous event rather than an attack, it is frequently plagued by time-consuming false positives. This can result in a "the boy that cried wolf" syndrome — when an actual attack is afoot, no one will respond because of all the previous false positives.
- It provides marginally effective mitigation techniques, if it provides any. With a high rate of false positives, it is perhaps a blessing that these products do not provide the option of a fully automated containment process. Because of their significant detection latency, anomaly detection response techniques are often geared toward containing widespread outbreaks through zone segmentation. This is equivalent to amputating an entire limb for an infection when a wound could have been treated earlier. A more appropriate response is to immediately and surgically contain the initial infection vector, before propagation can occur, preventing an outbreak in the first place.

Most anomaly detection products were built for network performance monitoring and diagnostics. They weren't designed to protect the network from zero-day attacks, targeted attacks and worm storms. Anomaly detection systems are unable to mitigate slow, stealthy and sophisticated attacks. Hackers are using this method, essentially spreading an attack over a longer time, to fly under the radar of anomaly detection engines and other security devices.

Someday soon, anomaly detection tools will be properly categorized as network management and monitoring devices rather than security solutions. To adequately protect your network, it is essential to have a real internal network security solution that is fast and accurate, and can actively defend against new generations of virulent attacks that, sooner or later, will target your network.

Arbel is president and CEO of CounterStorm. He can be reached at gil.arbel@counterstorm.com.

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Have your say

Log on to *Network World* to voice your opinion. Face-off authors Paul Morville and Gil Arbel will add their thoughts to the discussion.

DocFinder: 2522

E-MAIL NEWSLETTER SHOWCASE: Outsourcing

Components of an outsourcing contract

BY DAN TWING

I have discussed assignment clauses in contracts in past newsletters (www.nwdocfinder.com/2525). This is only one minor, albeit important, section of an outsourcing contract. Here is an overview of the common parts of an outsourcing contract.

Scope of service

This section should describe the rights and responsibilities of the parties to the contract. Think about how to define your requirements in the contract. While many service providers find this troubling, attaching the RFP and the vendor response can be a good starting point. If the procurement was well run, the requirements and the vendor's description of how they intend to meet those requirements will be well documented. Vendors don't like to do this because it forces them to have the sales language incorporated into the contract. A more legitimate concern is that often the scope of things explored in an RFP is not the final scope of work to be priced and contracted. The RFP contains too much information to be useful in the contract. A better way is to use the RFP as a guideline to write the actual requirements section for the contract. Other considerations include:

- Descriptions of required activities, timeframes and who is responsible.
- Be clear about integration requirements to other systems.
- Obligations of the vendor including services to be performed, training of employees, customer service processes and reporting requirements.
- Obligations of the customer, including types of personnel and skill requirements.
- Change management practices to add or modify services under the agreement.

Performance standards

This section defines the minimum service-level requirements and remedies for failing to meet the standards. These standards are commonly called service-level agreements (SLA). Penalties for failing to meet the SLAs will be addressed here.

Security and confidentiality

This can include the safe handling of data, confidentiality of the client's plans, activities and their customer data, as well as defining the vendors practices with their staff. This can include requiring the vendor to control access to certain areas of the operation or certain data, requiring the vendor to have non-disclosure agreements with their employees and subcontractors, as well as requiring the vendor to disclose security or confidentiality breaches.

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Controls

The client may wish to define certain controls such as record maintenance timeframes, notification of material changes to personnel, approval of personnel assigned, and/or insurance coverage requirements. If applicable, compliance with regulations should be defined as well.

Audit

The contract can specify audit frequency, who will pay for the audits, reporting available, and types of audits (for example financial, security or internal control). This section may also define timeframes and documentation concerning the resolution of any audit deficiencies.

Twing is vice president of research and consulting services with Enterprise Management Associates. He can be reached at dtwing@enterprisemanagement.com.

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On Technology
Beth Schultz

Calling all Enterprise All-Stars

What do recent IT projects at MetroHealth System, State Street and Weather Underground have in common? At first glance, not much. MetroHealth converged voice and data over wireless IP, State Street built an advanced MPLS network, and Weather Underground used Linux clusters and low-cost bandwidth to handle unpredictable traffic flows to its Web site.

The common denominator? These are projects that won the companies acclaim in *Network World's* inaugural Enterprise All-Star Award — three of 50 projects we honored last year.

Now it's your turn.

Chances are you recently wrapped up a leading-edge project or two that improved operations or opened new business opportunities (or better — did some of both). The technologies involved can be anything from access rights management to wireless LAN switching. You just have to be able to demonstrate how the project helped meet an important business goal.

Maybe, for example, corporate accountants are breezing through regulatory oversight meetings because of the compliance management system you've implemented. Perhaps line-of-business managers are sealing deals quicker than ever with their improved access to the right information they need, when and where they need it.

Whatever the achievement, it's worth sharing the accomplishment with your IT peers. Go to www.nwdocfinder.com/2436 to get the entry form for our second annual Enterprise All-Star Awards. Just outline the technology and business goals and tell us why your effort deserves to be noticed.

Award winners will be celebrated in the Sept. 25 Network World Enterprise All-Star issue and may be invited to participate in *Network World*'s new IT Road map conference series, single-day events hosted in cities around the country that examine the hottest issues of the day.

The first IT Road map conference will open in Boston next week and features a number of All-Star winners. After the keynote address, for example, there will be a panel discussion with John Halamka, CIO of Beth Israel Deaconess Medical Center; Ahmed El-Haggan, vice president of IT and CIO, Coppin State University; and Tom McCormick, manager of network engineering with Carnival Cruise Lines. (For more about the events go to www.nwdocfinder.com/2535.)

The deadline for project entries is May 10.

— Beth Schultz
Signature Series editor
bschultz@nww.com

Opinions

Tapped out

Overall, your story "How do the feds tap phone lines?" (www.nwdocfinder.com/2523) was well done and informative. However, I take exception to the comments attributed to John Morris of the Center for Democracy and Technology. Carriers have always been protective of their equipment and cooperate with law enforcement on wiretapping to keep law enforcement's hands off. Morris' comment that in the past law enforcement didn't need carriers' help is nonsense; nobody could "literally walk into the phone company's central office and tap into the copper wire with alligator clips."

In the late 1960s, I was a network services manager for an office that served most of the embassies in Chicago. Later, I had a downtown Chicago district and my last field job was the division that included all the central offices in Chicago. This was in the monopoly days when almost everything we did was defined by Bell System operating procedures. This is why I strongly suspect my experience was typical for the Bell System, which then had 85% of all the telephone lines in the United States.

In 1968, when the FBI wanted a wiretap on a foreign embassy served from my office, I got a rush work order and my craftsmen quickly made the connections required, including a special red "doughnut" that circled the connection, warning others to leave those wires alone unless they had specific direction to change them in any way. (This is another reason why it is nonsense to think any outsider could come in and make wiretaps. Our routine testing would detect them and they would be undone, unless the red doughnut marked them as off-limits.)

In those days, we didn't know about or care about quarterly earnings. Our only focus, proven by many internal and external measurements, was customer service and we protected it any way we knew, from locks and code boxes at building entrances, to elaborate back-up power systems so nobody lost dial tone during a power outage — even if it lasted for days. We engineered our systems for peak days, so that even on Mother's Day, virtually everyone could get dial tone and make a connection. Wouldn't it be great if we held today's cellular providers to such standards?

Steve Wood
Raleigh, N.C.

Get a clue

Regarding your story about clueless user stories (www.nwdocfinder.com/2524): I had a user complain that his mission-critical system would not boot. I asked him to check and see if the power strip under his desk was tripped. He told me to wait because he would have to get a flashlight. I asked why he would need a flashlight; the power strip was right next to his desk. He told me that it was difficult to see because they had a power outage and all the lights were out. I said, "Are you telling me that the power is off in the building?"

"Yes," the user said, "and I need to send out an e-mail to let everyone know that the power is off."

I hung up the phone.

Another time we wrote an update program and put it on a floppy disk. All the user had to do was turn off his PC, insert the disk and turn the power back on. We wrote a batch file that came on the screen and said, "Hit any key to install update." We got six calls asking where the "any" key was on the keyboard.

Dave Meinert
South Park, Pa.

E-mail letters to jdix@nww.com or send them to John Dix, editor in chief, Network World, 118 Turnpike Road, Southborough, MA 01772. Please include phone number and address for verification.

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It's safe to say there won't be a BlackBerry service shutdown
What makes you so sure?
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I just checked my e-mail 37 times in the last 2 minutes... and nobody told me differently...

Pandemic planning: ultimate collaboration

DISASTER PREPARATION

David Stephenson

At a recent summit on corporate pandemic preparations, Health and Human Services Secretary Mike Leavitt was blunt: "Avian flu . . . will severely test the best-laid plans . . . and many companies are not making any plans at all. Those expecting the federal government to ride in and come to their rescue [will] be sorely disappointed."

Given the short time until a pandemic might occur, the only way businesses can prepare is through unprecedented internal and external collaboration. Fortunately, the benefits of this focus on collaboration technologies and attitudes will endure long afterward.

A pandemic's unpredictability and lack of planning time leave no room for duplication of effort. Technologies such as wikis are particularly well suited to this problem. Wikiware recently has emerged as an effective way to allow many users to simultaneously contribute to shared documents. Most relevant to pandemic preparation is www.fluwikie.com, perhaps the world's most comprehensive repository for pandemic-related news and views. Although the business-continuity section is less detailed than its other areas, this can change in hours if companies begin to post their own continuity plans, for example, and create Q&A threads.

Public-domain wikis get the most attention, but companies such as Motorola and SAP use wikiware behind the firewall. In pandemic planning, corporate employees can contribute simultaneously to a wiki-based company plan. During better times, wikis will simplify editing of corporate documents, track software bugs and let spreadsheets be shared easily.

A pandemic may also speed corporate adoption of other emerging technologies that collect, share and act on real-time, location-based information. I bet we'll soon see a Google Maps mash-up tracking the virus' spread in real time. Presence dashboards, such as Roaming Messenger, which integrate data from remote sensors on a real-time basis and contact personnel instantly via whatever devices they can access at that moment, will be invaluable for collecting and sharing information companywide based on where workers, supply-chain partners and customers are in relation to disease outbreaks. During normal times, these dashboards can optimize production and reduce maintenance costs by alerting key personnel about system failures, finding back-up personnel or sending orders to vendors to replenish inventory.

> Lessons learned under this threat about the technologies and attitudes required for collaboration will pay off for years to come.

The second component of successful coping with a pandemic — unprecedented collaboration — is tougher, because it requires attitudinal change. There is no room for competition regarding pandemic planning on either a corporate or global level. Equally challenging, it must be done simultaneously at all levels: in companies and schools; in government and other institutions in every community where you do business; and with your competitors, through trade associations —and once a pandemic is in progress, perhaps on an hour-by-hour basis. However, it's equally clear from collaboration pioneers — Lego, which involves customers in product design, and the Smart and Secure Trade Lanes Initiative, which reduces bioterrorism risk and improves supply-chain management — that collaboration pays tangible business dividends.

I'd prefer to do it more leisurely, but lessons learned under this threat about the technologies and attitudes required for collaboration will pay off for years to come.

Stephenson is a homeland security and crisis consultant, and creator of the "Pandemic Survival Planner" for handhelds. Check out his blog at http://stephensonstrategies.com.

Trade show tips that make life easier for all

TELECOM CATALYST

Daniel Briere

I am back from another trade show and am doing all my postconference processing. Once again, I'm dealing with all the typical postconference headaches, which follow the inevitable conference headaches, which were preceded by the preconference headaches. I am amazed that so many people are still making life hard for us analysts and writers.

Here's my list of my top trade show pet peeves (shared over a few beers with more than one fellow analyst or writer) and some tips for rectifying them. Read 'em, learn 'em, love 'em.

- Business cards: Yes, they're still needed. First, make sure you don't run out of them on the show floor — bring more than you think you need. Second, almost as bad as not having a card is having one that's hard to process. Resist the urge to be trendy and use initial lowercase, no matter what your public relations firm or design team tells you. Causing someone to go back and manually edit every field in a scanned card database record does not make a good first impression. Make sure the card is scannable — we get hundreds of cards; don't make us type them into our contact-management system manually. Make sure your company name is in print, not in the logo and the print is readable. Avoid colored cards with reverse print; if it looks great artistically, it's probably not very scannable. Avoid odd-sized and -shaped cards — their novelty value wears off fast, and they're a pain to carry around. Use two-sided cards (such as multilingual cards) only if you have a real need — don't make us sharpen our card-shark skills, flipping cards back and forth when there are 300 on our desk on a Monday morning.
- Booths: Trade shows are big places. There's no way to get reliable directions to booths at a trade show. Give us a landmark so we can find you. If you're behind the Google booth, say so. Give us something unique — such as your logo on a visible balloon — to find you. Finally, make sure there's something in your booth that tells what you do: "The leader in . . . ." Don't make us guess what you do based on your weird, ad-agency-created name. There are hundreds of booths at these shows; if we can't figure out what you do by looking at your booth, we're not likely to stop and ask.

> Focus on your intended audience's efficiency. If it's easy for us, that will pay back to you in the long run.

- Literature: Don't make us carry a huge paper press kit around. Put all your information online in a place associated with the specific trade show and give us the URL or use a CD or flash media. Electronic files are easier for us to organize when we're back on our office PC and become sortable in our Google Desktop search engine. You'll reap the rewards of this practice too. If we're on the same plane, we won't be stuffing a folder-filled bag the size of a watermelon under the seat next to you, so you'll be able to stretch out on the flight home.
- Meetings: First, have a reason for the meeting, and be honest. If you've got news, great — tell us. If it's just a catch-up meeting, that's OK too — but don't bait and switch. If you're offsite, that's not only inconvenient, it also affects all of our other meetings. So make it worthwhile, and don't be surprised if the painful cab lines and extended transport time means that your desired hourlong meeting can last only 20 or 30 minutes. If you don't want to swing for a booth, consider getting into one of the press events, such as Showstoppers or Digital Experience, which are a great way for start-ups to get in front of the press without spending too much.

Trade shows are important mechanisms for us to gather information. They are indeed a one-stop shop for building relationships and getting details. They're often the only opportunity to get hands-on with so many items. But please focus on your intended audience's efficiency too. If it's easy for us, that will pay back to you in the long run.

Briere is CEO of TeleChoice, a market strategy consultancy for the telecommunications industry. He can be reached at telecomcatalyst@telechoice.com.

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Even the most adept network manager faces challenges delivering optimal application performance on the wide area. Page 46.

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The city of Jacksonville, N.C., turned to Qovia to help manage its Cisco-based VoIP network. Page 50.

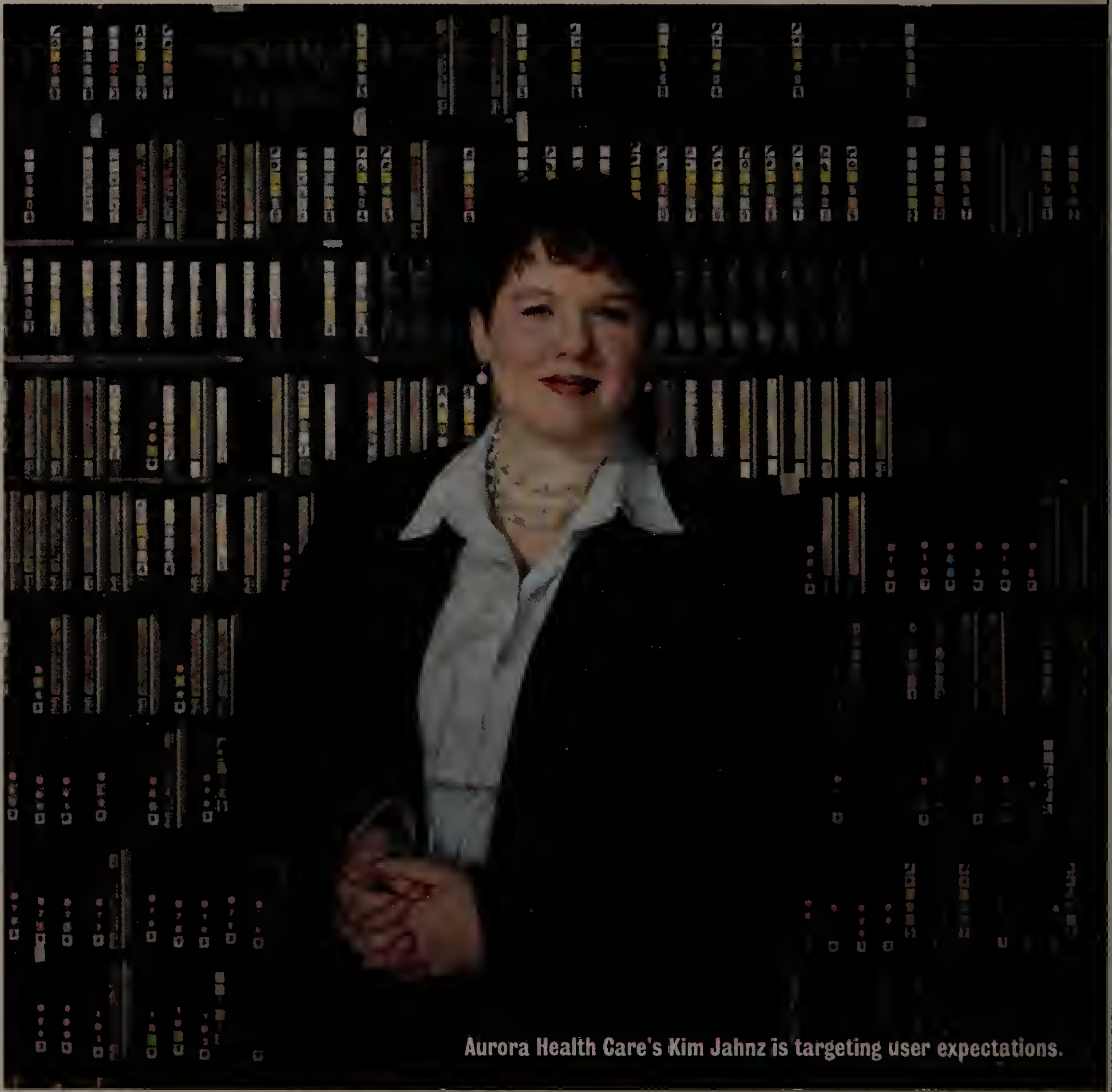
ONLINE
▶ **Systems management vendors go shopping** Go online for links to all of our coverage of network and systems management vendor mergers and acquisitions. www.nwdocfinder.com/2526

End-user experience is key

Focus shifts from device management to service delivery.

BY DENISE DUBIE

Kim Jahnz doesn't like to brag, but she says that over the years she has mastered managing network and systems performance and availability at Aurora Health Care in Milwaukee. However, Jahnz knows she faces a bigger challenge in 2006.



Aurora Health Care's Kim Jahnz is targeting user expectations.

PHOTO: TIM EVANS

"I can threshold network and server performance, and we can meet those thresholds. But we've learned that doesn't mean performance is acceptable to the end user," says Jahnz, lead systems management analyst. "What I need to do this year is integrate the systems we have, tighten our monitoring tools and take it to the next level, which for me is meeting the end-user expectation of performance."

Like many other network managers, Jahnz is hoping to bridge the gap between silos in IT shops and integrate management data so she can deliver optimal IT services to users. The tricky part is that network managers don't necessarily oversee other IT groups such as applications, security, storage and systems, but they must have links into all that management data.

Network management vendors are widening their horizons to help make this possible. For example, Cisco is showing that it understands the importance of application performance with its Application Oriented Networking (AON) strategy, which is designed to optimize Cisco networks to run Web services.

"One of the areas of network management that will expand this year is service-centric performance monitoring," says George Hamilton, director of enterprise computing and networking at The Yankee Group. "This requires network management vendors to understand the services that run on the networks and not simply the distributed devices. Vendors will have to start reporting on service levels and move away from traditional threshold alerts."

To understand which services are running on a network, network managers might need to invest in new technology — such as network configuration management products, network topology tools, network access control technologies and user

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Network management

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application performance-monitoring software — but they will also need to better integrate tools they already have.

"Network management has changed from a device-centric approach to managing the network as a context for service delivery," says Dennis Drogseth, a vice president with Enterprise Management Associates. "IT buyers want a central, strategic source of intelligence and integration with good enabling technologies while still being able to choose from multiple vendors."

Show me the slowdown

Jahnz always has paid attention to performance of network devices, wide-area links and back-end systems, in an effort to deliver optimal performance across the health-care organization's distributed network of some 180 locations. But she says that approach wasn't cutting it.

"Performance would be going to hell, response times for users going up by 10 or 15 seconds, and in no one place could we see the problem," Jahnz says. "I want to have my systems integrated to the point that I can walk up to one console and say, 'Show me the slowdown.' "

Jahnz, a longtime Aprisma Management Technologies' Spectrum user, says the software reports on service levels to some degree, and she couples that with an application response product from Concord Communications. Both vendors are now part of CA, and Jahnz says she is hopeful about future integrations from CA.

For now, she is focused on bringing all her management data — from the WAN, back-end systems and client desktops — into a console that can show her "what is actually happening at the point in time of a degradation on a client machine."

Jahnz thinks updating the technology she uses to capture application performance on client machines will help, as well as exploring new technologies.

Vendors such as Reflectent Software and Coradiant offer products that provide data on application performance on a workstation and user experience with Web applications, respectively. But at the base of it all, she is going to do a lot of integration work with existing tools. She uses management software from Aprisma and Concord, as well as tools from Intellitactics and Attention Software. The integration requires that she regularly meet with the heads of other IT groups, and she is confident she can tackle it in 2006 with the technology and staff expertise she has in-house.

"You can see a failure; you can't always see a slowdown," she says. "I need to quantify what users think is normal and what they think is slow performance, and configure the network to deliver on their expectations."

Measuring degradation

Make no mistake, this isn't about traditional desktop management, says Martin Webb, manager of data network operations for the province of British Columbia, in Victoria. It's about application and network service management from a critical perspective.

"We are trying to move toward an organization that understands it delivers shared services to meet a specific business need, which means acceptable end-user performance," Webb says. "Part of our new network management approach is always knowing when something on the net changes and moving beyond monitoring simple availability to understanding the performance characteristics of those changes."

He figures it will take more than a year to reach that point using existing technologies.

"It's much easier to manage the network in terms of failures than performance degradation, and then to be able to measure the degradation from the user perspective. That is going to take some work," Webb says.

No quick fix for Nix

For Michael Nix, assistant director of IT services and communications technologies at the Kansas University Hospital Authority in Kansas City, Kan., all the pieces to better manage his network for user performance are available; he just needs to better integrate and assemble them.

"This isn't going to be a 'Eureka!' technology. It's an incremental evolution and integration of technologies that already exist," Nix says. Building bridges among tools from NetScout, SolarWinds and others help him to track network and application performance, and he is evaluating new software from NetIQ to integrate the user perspective.

His staff uses products from NetScout to monitor the hardware on the network, look at traffic flow patterns and analyze how servers respond to application requests. He says products that could help him understand user performance could also give him data needed to engineer the network better, purchase equipment better-suited for users' needs and reduce the time and energy spent on manually tracking performance metrics. For example, an e-mail application could degrade an 800MHz PC more often than a 2GHz PC, which could influence Nix's PC purchasing decisions.

"It's the next step for network management to expand its reach beyond just network devices into areas like storage, security and desktops. [Network management] is a mature technology and it needs to be put to use where it makes a difference in supporting applications and the business," Nix says.

Jon DeLaCastro, IT director at TripPak Services in Denver, agrees that integration and data sharing could be the key to

Feeding frenzy

The top management vendors have been snapping up smaller companies to provide holistic, integrated management across multiple IT domains. Here is a sampling:

BMC Software

KMXperts: Knowledge management (August 2005).

OpenNetwork: Federated identity management (March 2005).

Calendra: User access rights and privilege provisioning (January 2005).

Marimba: Desktop and server management (April 2004).

CA

Wily Technology: Application performance management (January 2006).

Qurb: E-mail security (July 2005).

Tiny Software: Windows-based desktop and server firewalls (June 2005).

Concord Communications: Network performance management (April 2005). Concord bought Aprisma (network fault management) and Vitel (IP PBX management).

Netegrity: Identity management (October 2004).

HP

Outer Bay: Database archiving (February 2006).

Trustgenix: Federated identity management (November 2005).

Peregrine Systems: Asset management (September 2005).

AppIQ: Storage resource management (September 2005).

TruLogica: User provisioning (March 2004).

Consera: Provisioning and business process modeling (February 2004).

Novadigm: Desktop and server management (February 2004).

IBM

CIMS Lab: Financial asset management (January 2006).

Micromuse: Network fault, performance and security management (December 2005). Micromuse bought GuardedNet (security information management) and Quallaby (performance management).

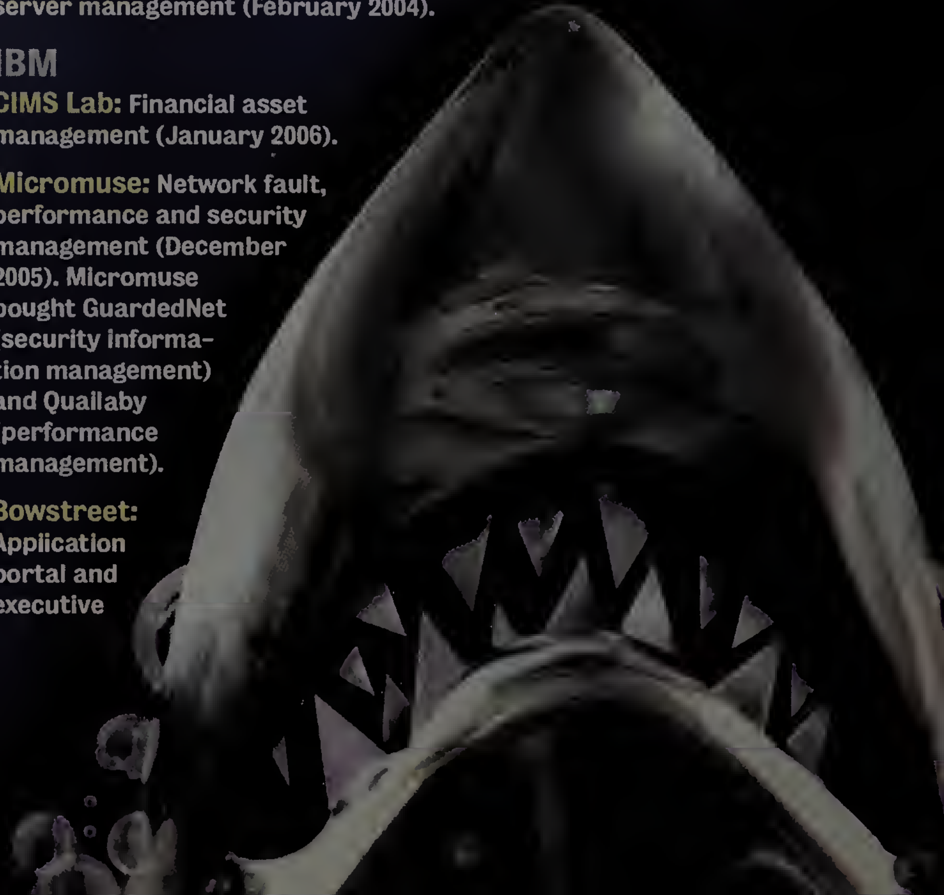
Bowstreet: Application portal and executive dashboard (December 2005).

Collation: Application mapping and configuration management (November 2005).

DataPower: XML and Web services traffic (October 2005).

Cyanea: Application monitoring (July 2004).

Candle: Mainframe systems management (April 2004).



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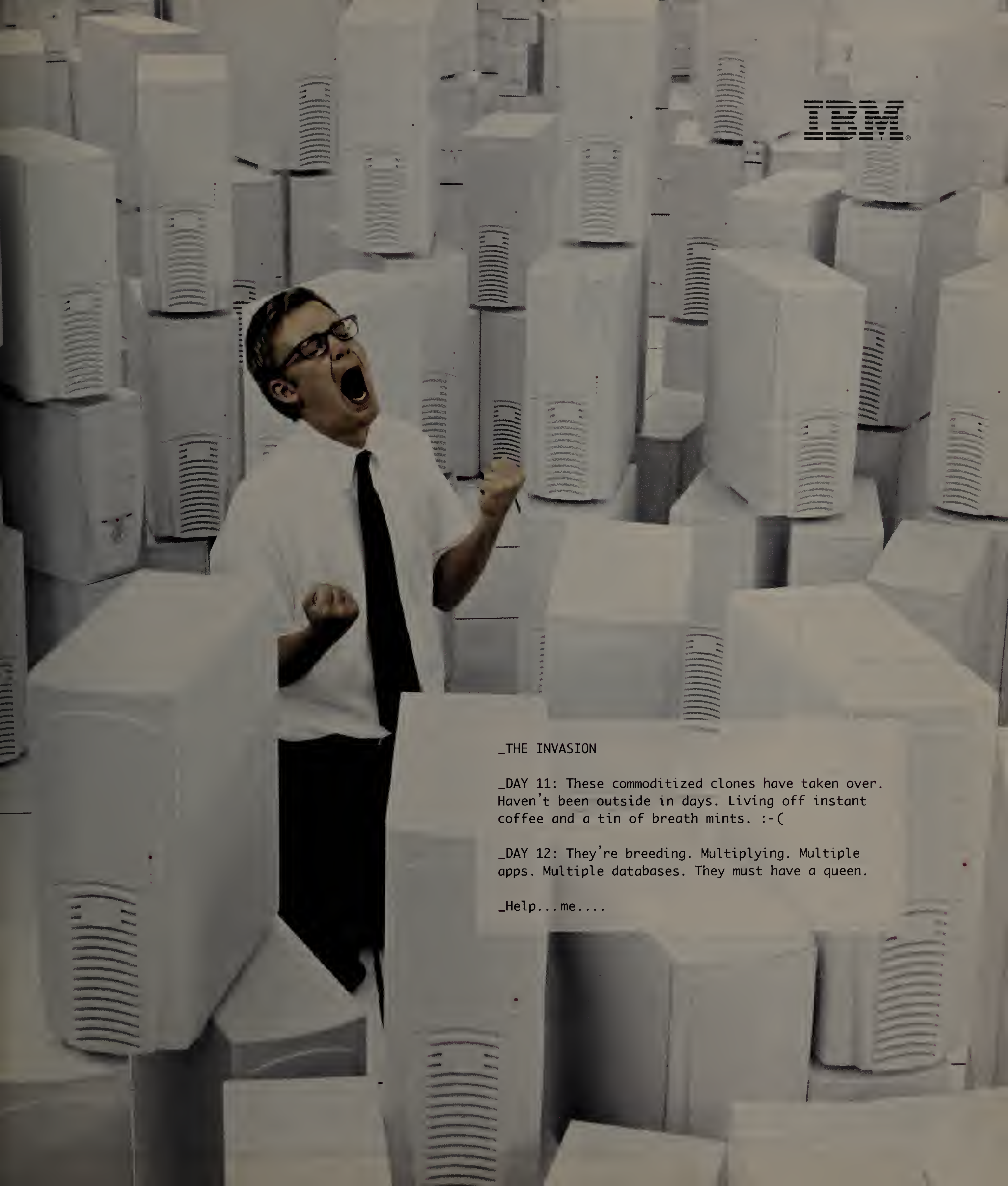

_THE INVASION

_DAY 11: These commoditized clones have taken over. Haven't been outside in days. Living off instant coffee and a tin of breath mints. :-(

_DAY 12: They're breeding. Multiplying. Multiple apps. Multiple databases. They must have a queen.

_Help...me....

Network management continued from page 44

better network management in 2006. He uses Spectrum to monitor the imaging company's distributed network, which allows vehicle fleet drivers to scan paperwork into systems while on the road.

Spectrum helps DeLaCastro monitor slowdowns and will alert his staff to potential degradation, but he wants to be able to share that management information with other systems better and ultimately provide the data to customers. He also thinks management software could support more automation to better ensure service levels are met.

"All of the monitoring that we have of our applications and services lets us know when something is wrong because of the thresholds we set," he says. "More automation is the only way to meet the demand for more uptime and reduce mean time to repair."

Scott Richert, director of network services at Sisters of Mercy Health System in St. Louis, is kicking off a three-phased approach in 2006 to better relate network performance to user experience. Working with Compuware, he says his network team is integrating data collected from the network and server infrastructure to get a picture of the client experience. With 300 WAN sites and 45,000 network ports managed, Richert says the priority is shifting to improve the network service performance for 26,000 users.

"Our healthcare organization depends on network technology extensively. We have voice, we have wireless, and we want to raise the availability of all our services," Richert says. "We want to find an enterprise console that will show us everything in one screen from application traffic to top talkers, as well as perform event correlation and report on service levels. We hope a vendor can get us at least 60% or 80% there."

Take my device, please

Like Richert, many network managers will be looking to new technology to solve at least some of their problems.

"It has to be a large vendor that has the presence in multiple IT areas to help manage across the entire stack," Nix says. "It's a big leap to integrate all these pieces, so I could see an HP or IBM or even Cisco acquiring or at least partnering to become that type of management provider."

The shopping list for network managers in 2006 includes network change and configuration management, network and application topology mapping, and identity management and network access control. For example, vendors such as AlterPoint, Intelliden and Voyence continue to incorporate support for more devices and change management capabilities into their configuration management tools. Topology technologies will help network managers better understand how devices, systems and software interact and depend upon one another, and network access control tools will help secure the more integrated systems by managing network access based on preset policies.

"Configuration and management of changes in the network will be critically important for network managers and for the large management vendors to have in heir suites," says Rich Ptak, principal analyst and founder at Ptak, Noel & Associates. "The network teams are also going to have to try to apply the automation that has been working across server environments to their devices."

Vendor consolidation

Cisco's recent partnership with Opsware is a good example of how network managers could get more than one

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The WAN plan

The wide area challenges even the most adept network managers to deliver optimal application performance.

BY DENISE DUBIE

Network managers concerned with the user experience face their biggest challenges over the wide area. LAN-like performance is the goal for users at home or branch offices, but many network managers have a hard time keeping application service levels up to par on their local networks, never mind across distributed offices supported by varying levels of connectivity.

This year, network managers are looking for a more integrated approach to tackling application performance on LANs and WANs, according to industry watchers.

"Application performance is becoming more and more WAN-dependent, considering the percentage of businesses supporting workers off-campus," says Dennis Drogseth, a vice president with Enterprise Management Associates. "Going forward, the LAN and WAN shouldn't — and probably won't for much longer — be mutually exclusive. The WAN can be a vehicle for helping overall application performance by showing where performance breaks down."

Others speculate there is a lot of work to be done before the worlds of application performance management software on LANs and application acceleration devices optimizing WANs can come together.

"WAN-application delivery will continue to drive application performance improvements, but more integration will be required in the future as application management, specifically problem identification, drives more required functionality," says Stephen Elliot, a senior analyst with IDC. "Hardware vendors have a lot more to learn about application infrastructures; they are more than IP packets."

For example, application performance management on LANs until recently focused mostly on measuring application and server response times. Now with traffic-monitoring and packet-capture tools from such companies as Network General, Network Instruments, Network Physics and NetScout, network managers can get an idea of how a network and applications interact and monitor application performance on LANs in closer to real time.

> "HARDWARE VENDORS HAVE A LOT MORE TO LEARN ABOUT APPLICATION INFRASTRUCTURES; THEY ARE MORE THAN IP PACKETS."
>
> **Stephen Elliot**, a senior analyst with IDC.

WANs offer a different scenario. Optimization tools tackle applications as a series of packets targeted for caching, compressing and accelerating. But a poorly configured application might not respond as expected to optimization techniques and could require an overhaul to improve LAN and WAN performance.

Application-acceleration vendors such as Array Networks, Certeon, Exinda Networks, Expand Networks, F5 Networks (which acquired Swan Labs), Orbital Data, Packeteer, Riverbed Technology, Silver Peak Systems and Tacit Networks work to deliver best-of-breed capabilities. Recently these companies also have been working separately to integrate more features, such as Secure Sockets Layer acceleration, into their boxes.

It could be all for naught, however. As vendors such as Cisco (with its Actona Technologies and FineGround Networks acquisitions) and Juniper (which bought Peribit and Redline Networks) further integrate their product suites, industry watchers expect to see more market consolidation in 2006 via partnerships, technology integrations and acquisitions.

For example, Thomas Mendel, a research director and vice president with Forrester Research, speculated in a 2005 report that with its FineGround purchase, "Cisco will ultimately migrate FineGround's functionality into its Catalyst switches. This will give Cisco the ability to do Ethernet switching, server load balancing, firewalling and application acceleration — all in one chassis."

Network managers may be hesitant to invest in new tools considering the numerous products available, and for now could resort to their own measures in-house until one vendor can deliver multiple features in a single tool.

"We have distributed Compuware Network Vantage probes throughout our WAN to monitor and watch traffic," says Scott Richert, director of network services at Sisters of Mercy Health System in St. Louis. "We like to be aware of application performance over the WAN."

Jon DeLaCastro, IT director at TripPak Services in Denver, uses his standard monitoring tool — Aprisma Management Technologies' Spectrum (part of CA since the April 2005 acquisition of Concord Communications) — as well as some QoS measures across his network. "We implement acceleration, compression and encryption on our Cisco network devices," he says.

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Network management

continued from page 46

technology from a single vendor. The partnership has Cisco distributing Opsware's Network Automation System software under the Cisco brand, and the two vendors will potentially collaborate in the future on network management technologies. Opsware complements its systems automation tools with network configuration management it acquired from Rendition Networks.

The push by IT managers is causing a major shift among vendors who hope to deliver integration, cross-platform support and advanced IP application management capabilities — either through partnering or acquisition. Management heavyweights BMC, CA, HP and IBM seem to be shopping constantly, and other vendors such as Cisco, EMC and Symantec have added management technology to their shopping lists (see graphic, page 46).

For example, the demand for integrated management tools drove system-centric IBM to acquire network-centric Micromuse. And network analysis vendor Network General acquired Fidelia and incorporated business service management capabilities into Network General's Sniffer line.

Other acquisitions, such as CA's purchase of Concord, which also gave CA Aprisma, show the importance of networks to large systems management vendors. Symantec this year picked up Relicore for its data center automation technology, and EMC has been working to integrate Smarts network management technology across its storage software offerings.

"When a market is about to take off, you see a level of consolidation take place and large players snatch up the innovators," says Jean-Pierre Garbani, vice president at Forrester Research. "The network is a technology-laden element of IT, different from the systems the management vendors are familiar with. These large network management vendors know, to continue to expand to manage, say, [VoIP] applications, they need a network renewal. To do that they are acquiring all the pure-play network management vendors."

Pure-play network management vendors such as Network Instruments, Network Physics and NetScout could persevere in serving smaller customers, but industry watchers agree that the fight for network management dollars in 2006 will come down to which company has the expertise on the network; has the ability to integrate the network tools with systems to manage servers, applications, storage and security; and can help network managers understand how that data relates to the user experience.

"Out of the big-four management software vendors [BMC, CA, HP and IBM], BMC is the only vendor that does not have a strong network management position," says Stephen Elliot, a senior analyst with IDC. "The others have either acquired or developed strong network management tools. The next challenge is to integrate across domains, for example applications and storage, and then integration with Cisco is becoming increasingly important." ■

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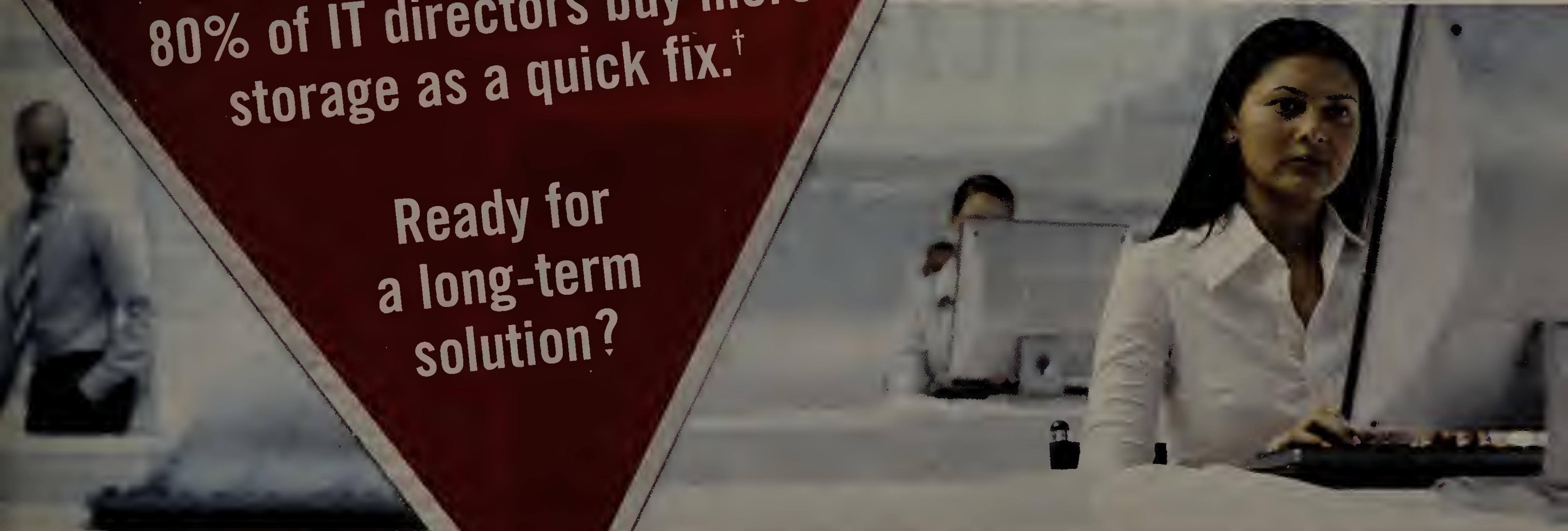

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guide to
NETWORK MANAGEMENT
(CASE STUDY)

City polices voice traffic

BY DENISE DUBIE

For two years, Bobby Parrish didn't worry too much about how his new Cisco-based converged voice/data network performed, mostly because it didn't cause any major problems. But when the wheels started to squeak, he started to worry.

"We have a lot of bandwidth out there and didn't run into serious issues," says Parrish, senior IT specialist with the city of Jacksonville, N.C. "But at the same time, I knew we were unable to proactively negate problems or to plan for upgrades, while knowing voice performance wouldn't degrade."

Parrish says the need for management software slowly became apparent, as voice call quality would falter from time to time, and he realized he had no way to troubleshoot the problems.

In 2002, Jacksonville overhauled its network and decided to run voice traffic over the data network, potentially "saving tons of money on the monthly phone bill."

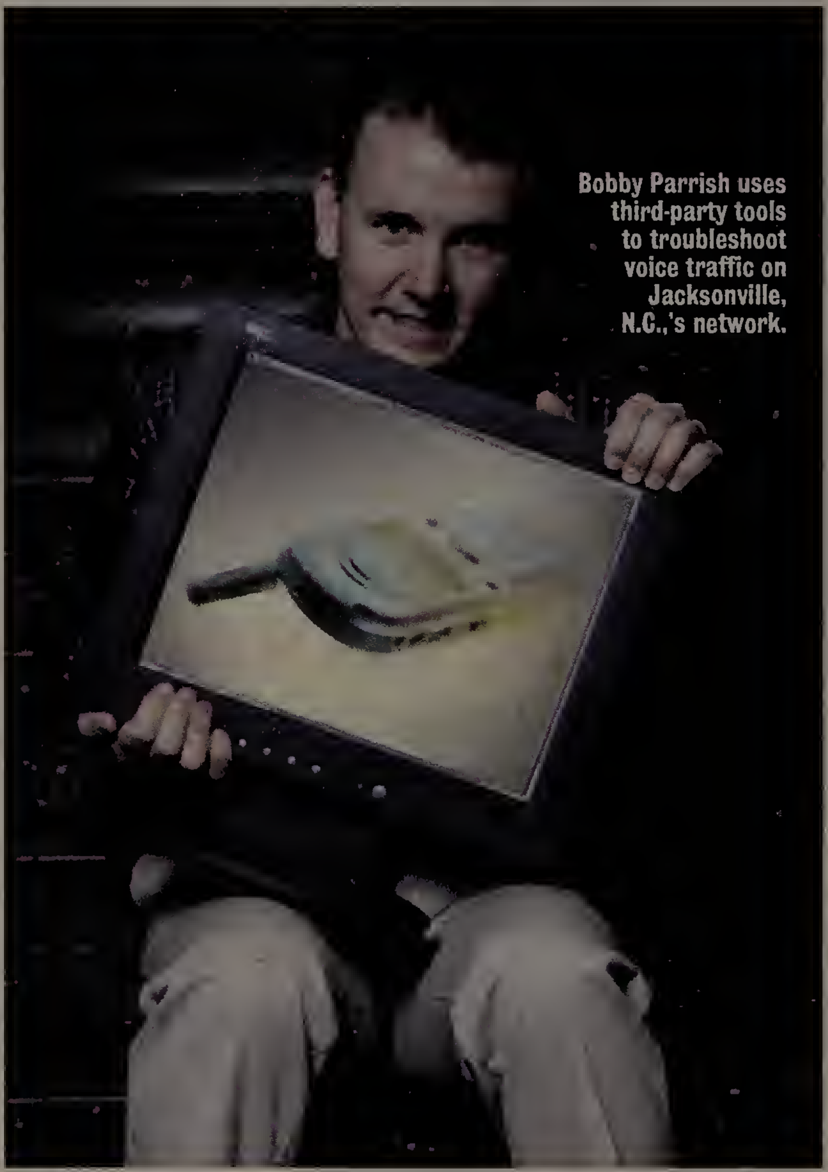
Bobby Parrish uses third-party tools to troubleshoot voice traffic on Jacksonville, N.C.,'s network.

PHOTO: CHARLES BROWN

"Plus our phone bills went from around $12,000 to $14,000 per month to around $3,000 to $4,000 per month."

"We were going to put in an infrastructure to interconnect all our buildings. The need for a new telephone system arose as well, so we decided it was just easier to put voice on top of that," Parrish says. "Plus our phone bills went from around $12,000 to $14,000 per month to around $3,000 to $4,000 per month, and that includes all of our T-1 lines for [Private Rate Interfaces] and Internet access."

Parrish says the city chose Cisco as the network and voice vendor, installing Cisco Catalyst 6509, 4006, 4507 and 3500 series switches at various locations. The infrastructure supports some 400 users with 240 IP devices and telephones, including fire and police, as well as public service departments and recreational facilities.

He says the city's network is completely switched with routing out to the Internet, two locations connected via frame relay and 19 locations supported via Gigabit fiber connectivity, on which he installed the VoIP network. He also uses Cisco CallManager software. the call-processing component of the Cisco IP telephony products.

Parrish segregated voice traffic using QoS within his switching infrastructure and virtual LANs for bandwidth and security purposes.

"Voice management is more important because of the cost-savings expectations and the business impact of failure," says Stephen Elliot, a senior analyst with IDC. "It is also a strategic decision; once made, there is no turning back unless you cut the project, which means IT and its planning has failed."

Despite his efforts to keep voice separate on network segments, performance wasn't always up to snuff. Even worse, Parrish says, when performance degraded he couldn't find the source of a performance issue or prevent it before it affected users.

"We were fortunate enough that we put in such a robust network that we didn't experience too many problems," he says. "But every now and then we'd experience jitter, echo, latency and overall lag with the voice traffic, and we didn't have anything to troubleshoot the cause of the performance issues."

Cisco tools were too costly

Parrish used CiscoWorks for his data management needs but couldn't afford to buy the voice management add-on. Having rolled out voice in 2002, he would have been ahead of the curve of large management vendors such as CA, HP and IBM getting voice capabilities into their software. According to The Yankee Group, a majority of IT managers depend on their equipment provider for voice management capabilities.

"The added features in the Cisco product didn't justify the cost," he says. "And nothing out there seemed to do what we needed at the time. We wanted to be able to monitor live phone calls and troubleshoot voice problems."

That is, not until Parrish came across a demonstration of Qovia IP Telephony Manager at a 2004 Cisco Networkers Conference. "The Qovia product was approximately 25% of the cost of the Cisco product," he says.

Soon after Parrish installed the centralized software on a server, which acts "as the brains behind the product," and distributed hardware probes, he says he learned about the performance of Cisco CallManager processing issues and determined mean opinion scores on call quality.

"The software can tell you if performance is degraded because of a malfunctioning switch board, or local utilization on particular network segment is high," he explains. "Now if I see a problem, I can go out there and tweak the QoS settings to try to meet end-user expectations."

Better yet, he says, he could determine if some of the smaller locations his network supports could handle the voice traffic, considering their bandwidth capacity. "I am able to do more capacity planning for the edge of the network," he adds. "I can determine the performance impact of adding phones to the network."

Yet voice management software isn't entirely where he'd like to see it. "We can be proactive on the server side, but the phone side is still reactive," he says.

That could change now that management heavyweights have taken an interest in VoIP management. For example, companies such as Entuity, InfoVista and Visual Networks (now part of Fluke Networks) are increasing their voice management capabilities, and industry watchers expect bigger vendors to follow suit in 2006. ■

MANAGEMENT STRATEGIES

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Hot security jobs

Business acumen in demand; forensics and wireless are popular technical specialties.

BY ELLEN MESSMER

Industry observers watching the IT security job market are pointing to up-and-coming areas such as computer forensics and wireless security for the hottest jobs. The better-paying positions overall, however, are going to security professionals with management responsibilities rather than simply technical roles.

Those are the findings from separate studies by The SANS Institute and the International Information Systems Security Certification Consortium (ISC2), which are professional organizations offering security certification. Their recent reports on how IT security jobs stack up indicate that security is gaining more clout with managers.

"To be a chief information security officer takes good technology understanding but also business understanding," says Rolf Moulton, president and CEO of ISC2, which has 40,000 members. To move up the corporate ladder, security professionals must spend more time speaking with their organization's businesspeople, learning their goals and communicating with them in ways they can comprehend, "not [in] the technical gobbledygook that technical people give them," Moulton says. If they don't, they end up "staying in a security club rather than a business club."

What's it pay?

Position	Titles	U.S. median salary and bonus
Senior security executive	Chief information security officer, chief risk officer, chief security officer, director of security, security manager	$106,326
Policy-oriented security professional	Information security officer, security analyst/consultant, security auditor, security consultant	$83,835
Technical security professional	Network administrator, network architect, programmer, security analyst/consultant, security auditor, security engineer, security penetration tester, system administrator, systems engineer, systems integrator, Web security manager	$75, 275

SOURCE: THE SANS INSTITUTE

And the result is a big difference in salary, at the very least.

"The SANS 2005 Information Security Salary and Career Advancement Survey" shows that those in executive roles — with titles such as chief information security officer, chief security officer or security manager — earned $106,326 on average. That compares with the average $75,275 paid to technical security professionals with job titles such as security engineer, security penetration tester or Web security manager (see graphic).

Moreover, being in the United States confers an advantage. The ISC2 and SANS reports conclude that U.S.-based IT security professionals overall are paid considerably better than their foreign counterparts, and this is particularly true in Asian countries (for more on global pay, see www.nwdocfinder.com/2421). Part of the reason for higher U.S. salaries, as compared with the rest of the world, is that network security has been a defined profession here for longer, Moulton says.

Both organizations urge security professionals to facilitate career moves from the technical to the management track through training and certification, as well as college-level business-related studies. "An MBA, as well as a college degree in information security, is what we see in CISOs," Moulton says.

New skills are in demand

IT security professionals — many of whom started as network administrators and honed their skills to become experts in Windows security, firewall maintenance or intrusion-detection systems, for example — always wonder where the next hot jobs are.

So too does David Foote, director of research firm Foote Partners, which periodically surveys thousands of technical and business managers to determine which IT jobs are in most demand — and which are on the wane. Foote says a recent survey of management opinion at 1,900 companies suggests that in the coming year, corporations will be most interested in hiring security professionals with expertise in a few rising fields: incident response and forensics; wireless security, identity management and VoIP-related security. "I think there'll be a lot more activity in these areas," Foote says.

Vendor-specific equipment certifications remain important, such as those from Cisco, which last year introduced new certifications for most of its security products, Foote says.

In addition to the continuing importance of expertise in product or technology areas, there's a new element that could impact careers in IT security, Foote says: Corporate managers have started indicating a strong preference for hiring IT security professionals who have a solid track record within a specific industry, whether manufacturing, retailing, medical or any vertical market. "Consider staying with a vertical industry," Foote says.

That shouldn't discourage job seekers from moving from company to company in search of better pay or working conditions, but now there appears to be clear value in sticking to a vertical market. The reason for this is that employers are expressing greater confidence in candidates who have an understanding of the business relationships and patterns of their industry, not just technology expertise.

ISC2's "The 2005 Global Information Security Workforce Study" also indicates that wireless security, identity and access management, disaster recovery and forensics are areas where organizations are investing the most. Computer forensics — the intersection of technology with crime and the law — is an evolving field in terms of the definition of a metric for skills.

Lt. Col. Kenneth Zatyko, director of the Baltimore-area Defense Computer Forensics Laboratory, says only in the last two years have a handful of colleges, including Johns Hopkins, Carnegie Mellon and the University of Tulsa, begun offering academic programs for digital forensics examiners. "Frankly, right now we have to grow our own," says Zatyko, whose laboratory strives to maintain a staff of about 40 digital forensics examiners. Steven Shirley, executive director of the Department of Defense's Cyber Crime Center, which houses the lab, can approve the lab's employees as digital forensics examiners, based on Zatyko's recommendations.

The Cyber Crime Center also is staffed with more than a dozen forensics technicians who are allowed to handle digital evidence but aren't in charge of analysis. A digital forensics technician's salary is between $55,000 and $75,000. "An examiner makes about 30% to 50% more," Zatyko says. In his program, examiners must pass an annual proficiency test.

IDC pegs the current number of IT security professionals in North and South America at 647,577, and expects that number to grow to 787,292 by 2009. ■

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Golden State Foods exceeds goals with OmniCenter

Michael Bourque, Technical Services Manager of Golden State Foods, speaks about his experience with Netreo's OmniCenter™ network management appliance.

Golden State Foods (GSF) has processed and distributed replenishable supplies to McDonald's Corporation since it opened its first restaurants in the 1950s. GSF's worldwide operations include locations across the United States, Egypt, Australia, and Malaysia.

Q: What made you decide to look at changing network management platforms?

A: Our network was growing at a very rapid pace and it was hard to keep up. So instead of hiring more admins, we needed something to help us fight the battle of keeping up with all of our locations and diverse systems.

Q: What criteria did you use to evaluate them?

A: Our criteria for selection was first, does it interact with all our diverse systems. Second, can this all be done from one central location without impacting the Wide Area Network? We also considered complexity. We didn't want something you needed to go to a week of classes and still couldn't understand how it works or how to make any changes. And finally there was cost, OmniCenter gives you more bang for the buck than anything else I have seen.

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Michael Bourque has been with Golden State Foods for 9 years. He carries the MCSE, CCNA, CNE, IBM Certified Professional and Lotus Notes certifications. His responsibilities include all aspects of GSF's network infrastructure, including network security, email and web systems, and AS400.

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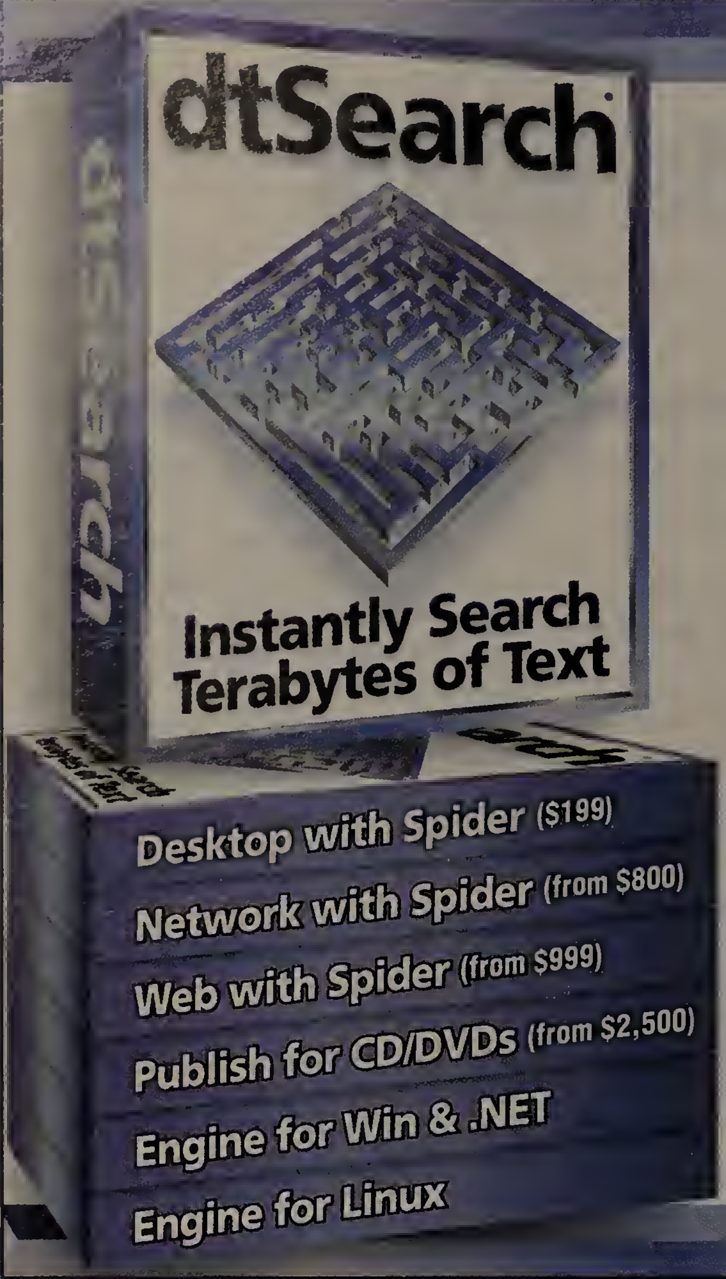
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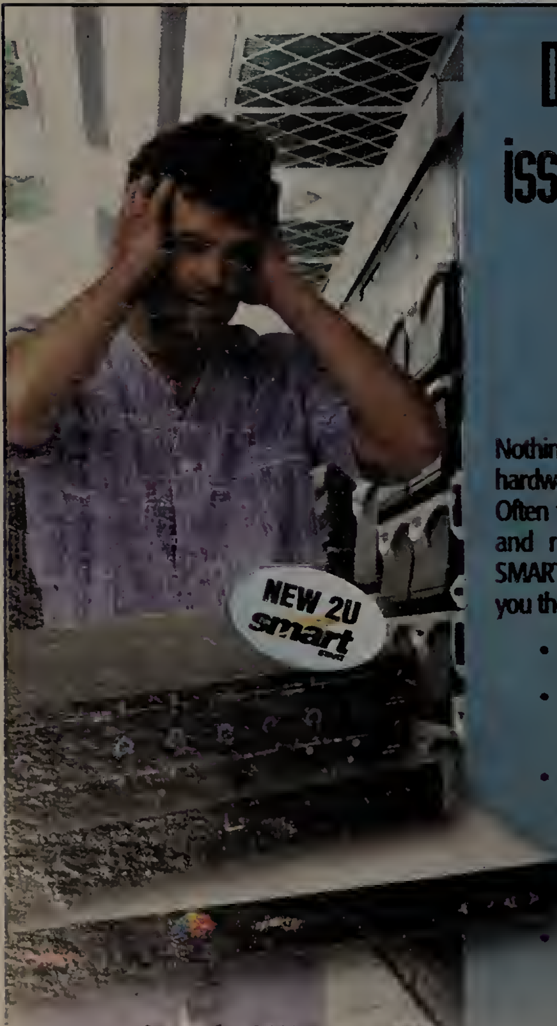

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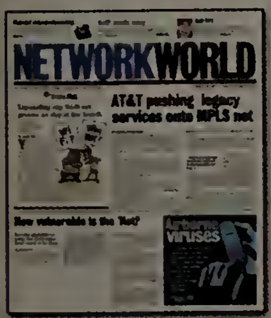

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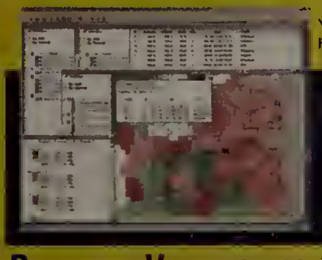

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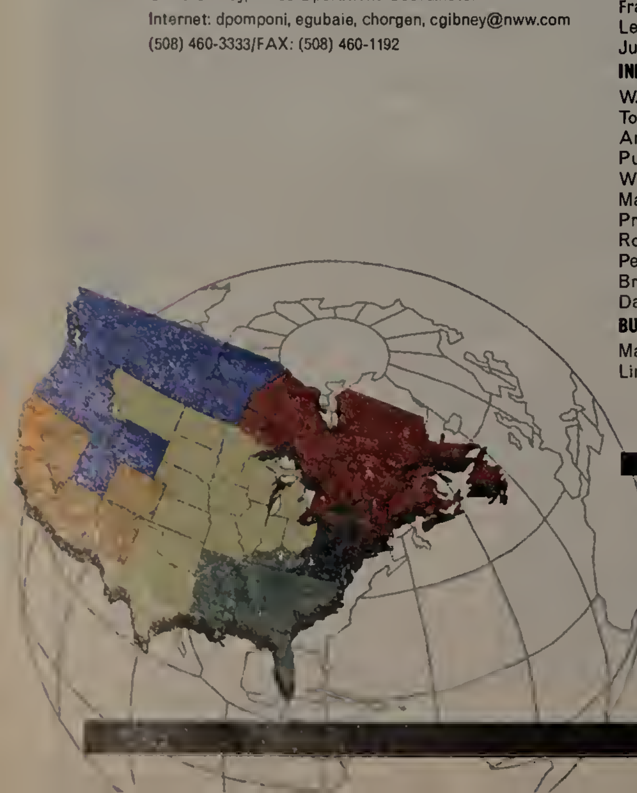

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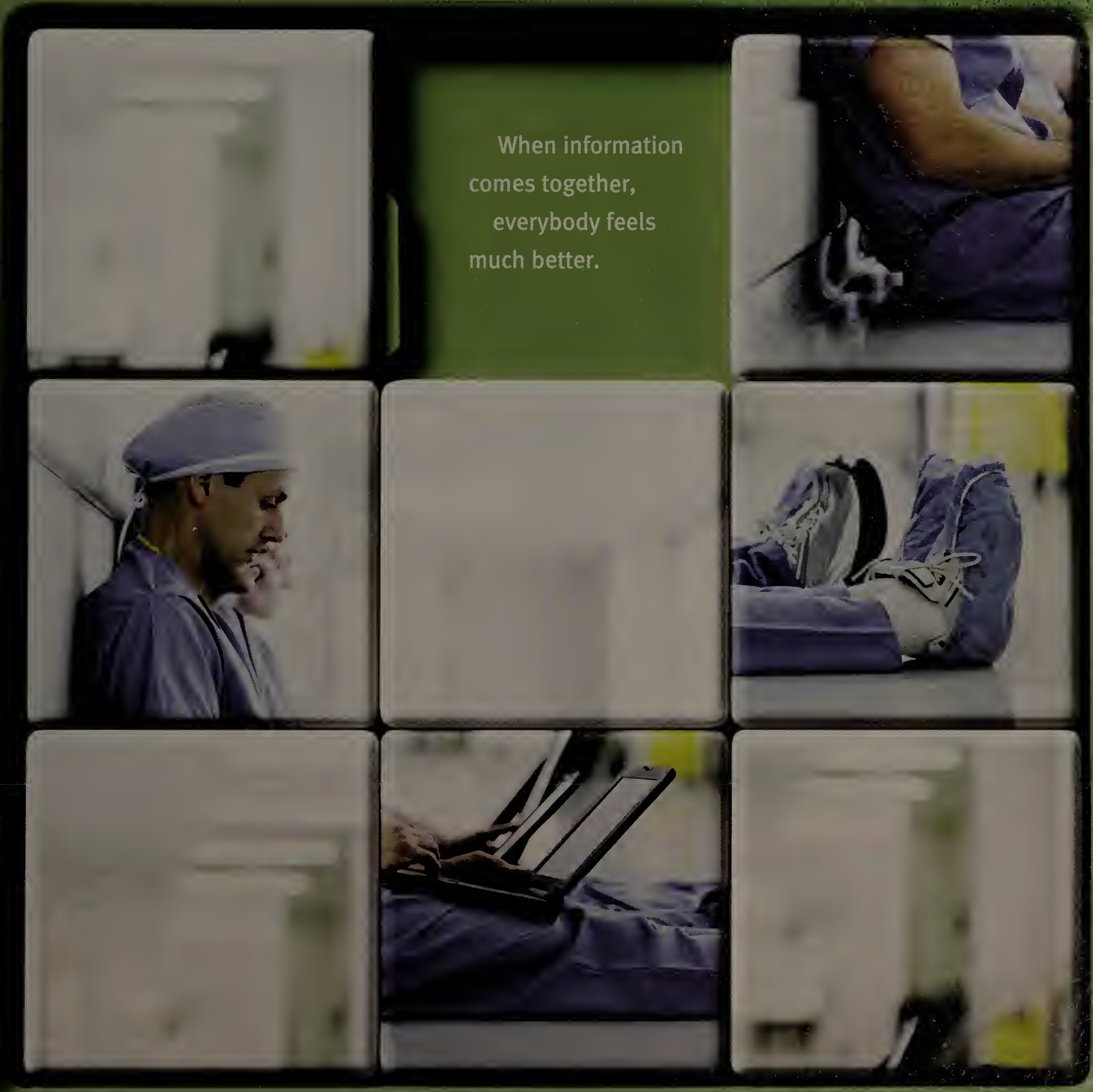

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Counterfeit

continued from page 1

Counterfeit countermeasures

Advisory firm KPMG paired with the Alliance for Gray Market and Counterfeit Abatement to poll IT vendors and suppliers on the issue of counterfeiting. Here are some symptoms and tips their research yield:

Early warning signs that can signal a company has a counterfeiting problem:

- Sudden drop in raw materials orders.
- Increased orders for proprietary components.
- Increased gray-market availability.
- Increase in service returns.
- Large volume of discounted products available.

Steps to help mitigate counterfeiting:

- Continually evaluate and employ anti-counterfeiting technologies, including RFID and security labeling.
- Partner with law enforcement and customs agencies to research and monitor the traffic in counterfeit products, and pursue infringers.
- Develop anti-counterfeit education and training programs for internal and external stakeholders, including users, channel distribution partners, and service and sales employees.
- Continually monitor distribution streams for counterfeit products, such as Internet brokers, direct sales, retail outlets, wholesalers and Internet trade Web sites.
- Provide a simple means, such as a tip line, for people to report suspected product, Web site or other infringements.

drill well. Counterfeiters have long created knockoffs of luxury goods from companies such as these. Auto parts makers, sporting goods suppliers and pharmaceutical manufacturers also are all too familiar with counterfeiters.

It's a problem that has grown since fraudsters began using auction sites and online marketplaces to sell counterfeit goods efficiently and in large volumes. The International Chamber of Commerce estimates that counterfeit goods account for 5% to 7% of world trade. In the IT industry, manufacturers lose about $100 billion to counterfeiters annually, according to research from KPMG and the nonprofit Alliance for Gray Market and Counterfeit Abatement (AGMA).

Fortunately for businesses, as counterfeit-related damages have multiplied, so too have the tools to fight back. Brandimensions, Cyveillance, GenuOne and MarkMonitor are among software makers with products that monitor for inappropriate or fraudulent use of a corporate name or identity on the Internet, including Web sites, domain names, chat rooms and auctions.

In addition, vendors such as 3M, GenuOne and Texas Instruments offer security labels, some outfitted with RFID tags, others designed with photo-luminescent dyes embedded into labels and coatings, for example. These technologies can help companies better track and authenticate components and finished goods as they move through the supply chain, as well as make it harder to tamper with or copy packaging.

"E-commerce is playing a big role in counterfeit. The counterfeiters obviously want to get as close to the consumer as possible, and they don't want to have to rely on resellers and distributors," says Nick Tidd, president of AGMA.

A group of IT vendors formed AGMA to share ideas for tackling gray market issues. (Gray market activity refers to sales of authentic goods through an unauthorized channel.) The group has expanded its focus to include counterfeit IT gear.

"Counterfeit came on the radar screen about two and a half years ago. A number of our members found that their return rates were starting to increase, and that the quality of those returns was starting to become suspect," Tidd says.

Those are two indicators that can alert vendors to a counterfeiting problem — something not many IT buyers first suspect, Tidd says. Consumers don't tend to think that IT gear, in its complexity, can be counterfeited, he says.

But Tidd has learned not to underestimate the tenacity of counterfeiters. "There's never a day that we don't just kind of shake our heads and say, 'Oh my gosh.' Even as our products get more complex, with things like surface mount technologies, and components get more miniaturized, they just find a way to copy it."

The allure of easy money is too strong. Jeffrey Unger, CEO of GenuOne, likens counterfeiting to selling illegal drugs. There's enormous economic incentive, but with less harsh penalties — a combination that has attracted the attention of organized crime, especially in Asia and Russia, he says. "It's a lot less risky to move counterfeit DVDs or routers or sneakers than it is to sell drugs. And the money is just as good."

Fighting the good fight

World Wrestling Entertainment has been using software from MarkMonitor for two years to help find knockoffs, after fans tipped off the company to the rash of unauthorized merchandise being sold on the Web.

"A lot of our fans started reporting infringements online to us," Papachristos recalls. The reports prompted WWE to dig deeper. "When we looked, we just saw an unbelievable amount of stuff on the Internet," she says.

WWE first deployed MarkMonitor's brand-protection software to find inappropriate uses of its corporate name, brands and logos. The company recently added the vendor's new Auction Monitoring module, which creates a daily snapshot of suspicious auctions and resellers so Papachristos doesn't have to manually scour the sites. She then decides whether to send a cease and desist letter, report the offense to the auction site, or request a suspension of the seller. "It saves me so much time," Papachristos says.

Detection speed is important, given how quickly fake wares proliferate. Counterfeiters work incredibly fast, whether they're copying a complicated piece of IT hardware or a simple DVD.

When a pay-per-view event airs, Papachristos knows to look for an unauthorized DVD version right away. "They'll have it up the next day," she says.

Sometimes the bad guys even beat WWE to market. When word gets out that WWE plans to release a new anthology of WrestleMania episodes, fake anthologies immediately start turning up on the Internet. "All of a sudden on eBay I'll see people trying to sell old WrestleMania footage," Papachristos says. "They'll make their own compilation and try to sell it because they know that ours is coming out."

The same goes for complex equipment. Before a product is released, there will be counterfeit versions, GenuOne's Unger says.

Outsourcing has increased the problem, he says. When companies are choosing a factory to outsource their manufacturing, they'll send samples of their products all over the world. If one winds up in the wrong hands, it will be reproduced and made available illegally before the company finishes its own production.

Using contract manufacturers can increase a company's exposure to counterfeiting. "Companies are taking their intellectual property, sending it to a third party, and teaching them how to make their product. There's leakage in that supply chain," Unger says.

In addition, as companies swap overseas factories, there's a risk production won't stop at the facility they vacated. "You've basically just left someone, somewhere, with the ability to make your product. Many of them, unfortunately, will keep making it."

One way to combat vulnerabilities in contract manufacturing is to better monitor outsourcers, supply chain partners and distributors. "Folks have to be very diligent about watching the raw materials that are going into their factories, and they've got to watch the serial numbers very closely for duplication and fabrication," Tidd says.

Another anti-counterfeiting tactic is to make use of copy-resistant products and packaging, says Tidd, whose day job is head of 3Com's channel operations in North America. "At 3Com we've just started putting a four-dimensional holographic label on our switches," he says. "We're telling consumers of our product, 'Look for this label, which will help identify if this product is legitimate.'"

3Com also has been proactive in working with law enforcement to help orchestrate raids on sites where counterfeit 3Com products are being made. In some cases, law enforcement officials have gone in and seized the property and assets of the counterfeiters, Tidd says.

"When we do seize, it's often quite startling the amount of raw material that's there — everything from the components, right through to some of the finish goods," he says. "We might find our boxes and manuals. And that really is the only evidence we have as to the potential of that factory and what it could have produced against us from a revenue loss potential." ■

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BACKSPIN Mark Gibbs

We need a broadband policy

The Internet has become a foundation of our culture and our businesses, and it is hard to recall how we did things such as shop and bank and read the news and keep up with our friends BI (Before Internet). But on a national scale the Internet still isn't as pervasive and as effective as it could be or as we thought it would be by now.

This leads me to Johna Till Johnson's column last week, "Keep the feds out of broadband" (www.nwdocfinder.com/2551) In this, Johnson discussed why a national broadband policy isn't needed. But I think that ignores a big issue — what our culture needs. We'll come back to that in a minute.

Let's look at her arguments: "Who are we to dictate how people should spend their money?" In reality, a national broadband policy would not actually force people to spend money.

On the contrary, it would give them the opportunity to spend money if they wanted on a service that would arguably be more valuable to society than the telephone has been.

Her second point is, "There's no guarantee such a scheme will actually work," and she is absolutely right, it might not. On the other hand we can be pretty certain that without such a policy broadband will remain limited to those who live in the right places.

The right places will be the areas that the telcos can service at a profit. Don't get me wrong — making money is exactly what the telcos have to do; they are for-profit entities, which means that making a profit comes before anything else. Taking that as a given, it follows that they will ignore fulfilling cultural needs unless there's money in it or they are required to do so.

She's also completely on the money with her final point about the feds being willing to prevent municipal- and community-funded broadband services, but that's a separate issue from a national broadband policy. What she highlights is simply corrupt politics. A national broadband policy would hopefully trump any such silliness and allow for multiple ways for broadband service to be funded.

Her solution lies in her belief that the free market will provide what is needed. This sounds fine in theory, but the free market isn't a level playing field. There isn't enough competition in broadband nationwide and the telcos will service users who fit their profitability model before anyone else. Moreover, those users will get whatever level of service the telcos can get away with.

At the heart of the problem is that the telcos have no overriding reason to do good; they simply strive, like Google, to do as little evil as possible. Looked at from another viewpoint, the telcos will do as much evil as they can get away with without getting into trouble. To the telcos, their evil may not seem so. To us, it is obvious. It is poor availability, bad service and lousy support. They are just trying to make a profit.

Unfortunately we are collectively and individually held hostage by lack of choice, which lets the telcos work their evil, and the consequences for our culture and our economy could be serious in the long run.

I suspect that part of getting what we want in terms of a national policy would be to define a lowest level of service available to everyone. But if you want more, then you have to pay for it. And therein lies the rub: Welcome to the tiered Internet.

And why not? If the basic service lets you, say, run a single phone line, watch television and browse the Web all at the same time, then wouldn't that fulfill the average consumer's needs? Want more? You have to pay.

It seems to me that we can't do without a broadband policy if we believe that the Internet is as valuable as we think it is, and if that's so, tiered service will inevitably become part of the grand plan.

Is there a better way? Tell me at backspin@gibbs.com or on Gibbsblog.

Paul McNamara

NETBUZZ News, insights and oddities

Piggybacking . . . and how to fend off the pigs

The New York Times recently took a front-page swipe at the (Internet) age-old question of whether an unprotected wireless network amounts to an open invitation for any piggybacker who happens by with a laptop.

Theft of service? . . . Or victimless "crime" of convenience?

At this point the question has become pretty much a philosophical one: Either you're OK with catch-as-catch-can wireless . . . or you're not. But the story did get me thinking about the issue again.

First off, the Times quoted Edwin Caroso, a 21-year-old Miami Dade College student: "I don't think it's stealing. I always find people out there who aren't protecting their connection, so I just feel free to go ahead and use it."

Imagine the swell of pride in the chests of Mr. and Mrs. Caroso as they see their little Edwin being quoted in the nation's newspaper of record espousing such irrefutable logic. That's our boy — the knucklehead.

I'm not unreasonable: The occasional quick sip out of an unprotected wireless stream — you've got to do something important, you don't have an alternative and you don't leave any trash where you troll — doesn't make you a bad person. But doing it all the time? Sorry, Mom and Dad, that makes the lad a petty thief, no matter how unselfconscious he may be about the practice.

The notion that irresponsible wireless users deserve to have their service degraded by freeloaders — and that the service providers have no stake in the freeloading — has always struck me as suspect.

Do unto others, etc.

Which brings us to another point: Absent a sudden pandemic of security consciousness among the wireless user masses, what might be done to dramatically reduce the temptations presented to Caroso and his fellow travelers in the what's-yours-is-mine crowd?

For insight on the question I turned to security expert Joel Snyder, a frequent *Network World* contributor and senior partner at Opus One, a consulting firm in Tucson, Ariz. You can read the full text of Snyder's colorful reply on my blog, but this excerpt captures the gist of what he proposes:

"Here's an answer: Put a switch on the access point," Snyder writes. "I don't mean an on-off switch. I mean a 'secure/insecure' switch. If there are only two common configurations: one wide open and one with [Wi-Fi Protected Access]-Personal encryption, then put a switch on the box."

I actually have an access point that has a switch on it with four positions. One is 'management mode' and the other three are various combinations of open/closed, routing, etc. That wasn't hard, and the access point cost $60. So it's not like I'm coming up with this incredibly great idea here — access point vendors already have it."

But wait, there's more.

"What about the password? Well, put it on a sticker, next to the switch," he continues. "If you wanted to be non-negligent in security, then you could go one step further. Ship the box with the switch in 'secure' position. Put a little piece of tape on it, kind of like the one that's over power outlets saying 'Are you sure you're on 120 volts?' Someone wants to move the switch, OK. But if they don't, the password is right there on the box."

That doesn't seem so hard.

You can still join the Buzzblog Brigade

Names continue to be added to the Buzzblog Brigade mailing list on a daily basis. Soon these volunteers will begin to receive occasional missives from yours truly seeking their opinions about this or that matter of interest. We'll do some polling, too. Want in on the list? Just drop me a line.

You're just dying to defend Edwin, right? The address is buzz@nww.com.

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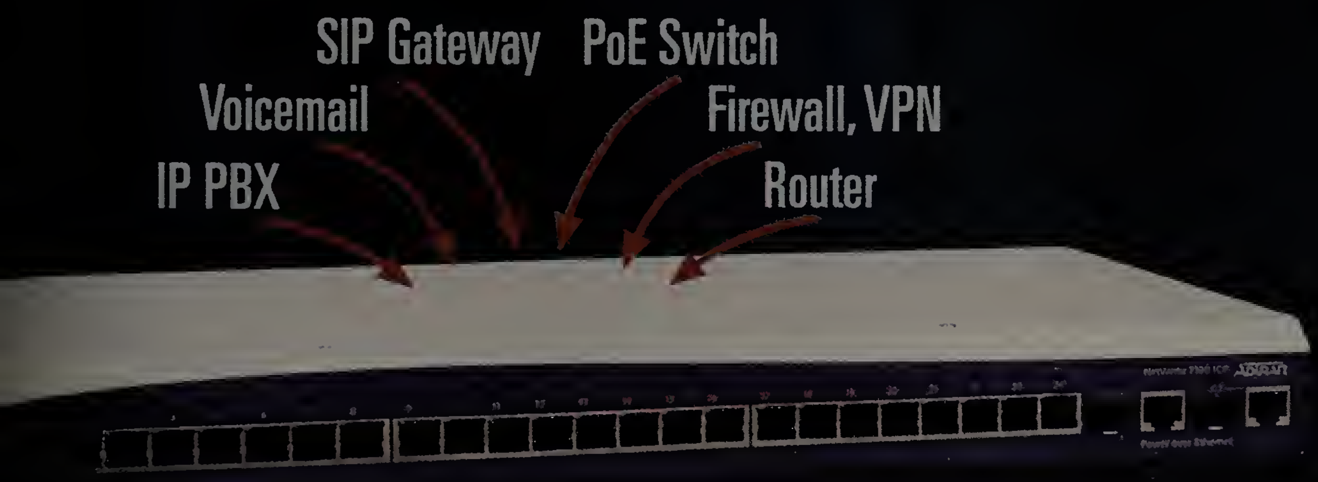

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